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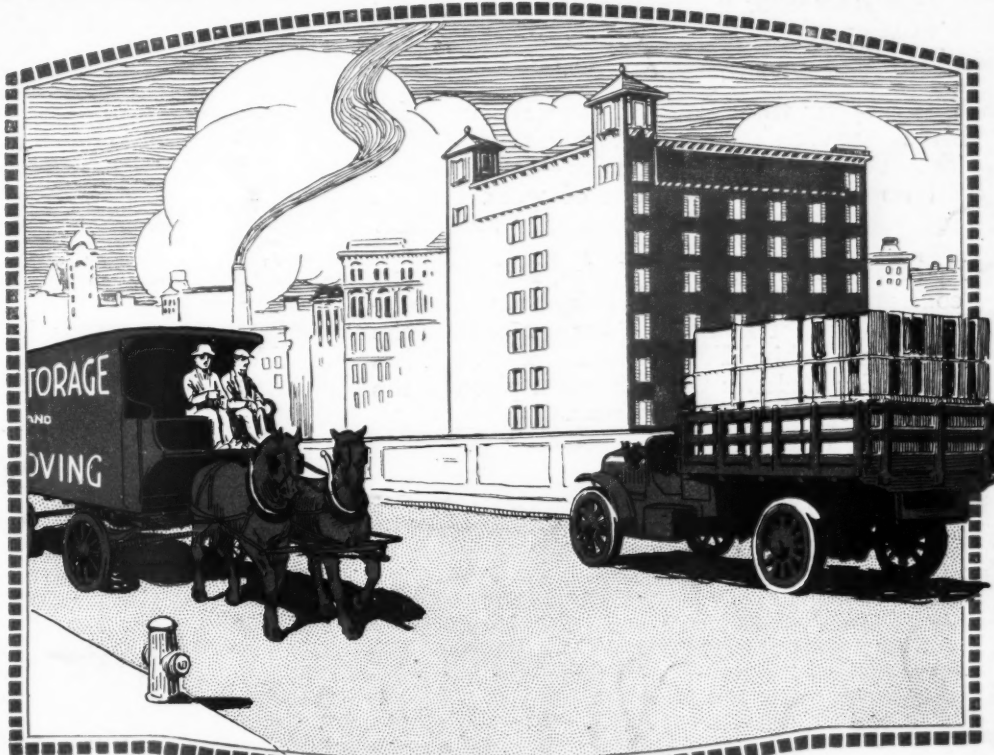
MOVING AND STORAGE OF
HOUSEHOLD GOODS

MERCHANDISE
DISTRIBUTION

Vol. XVI No. 11

New York, N. Y.

November, 1917



IN THIS ISSUE:

Safe Deposit Vault Offers Lucrative Side Line
for Warehousemen

The Modern Household Goods Mover Serves
250 Mile Radius by Motor Truck

War Storage Committee Tells How Efficiency
of Warehouses May Be Increased

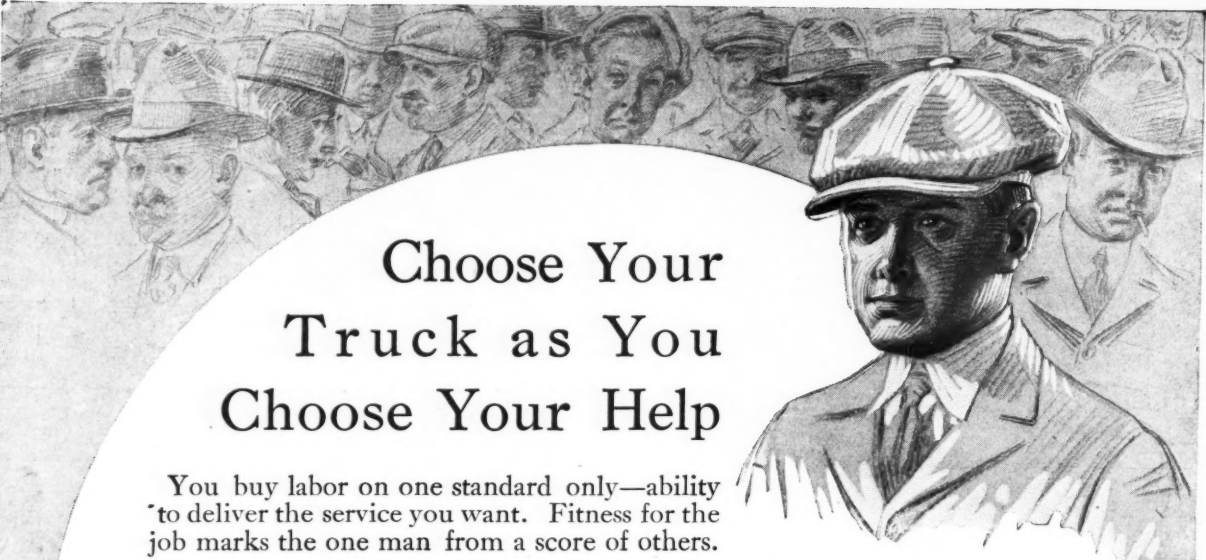
Universal Cooperation Necessary to Over-
come Transportation Deficiencies

Useless Waste of Warehouse Man-Power
Reduced By Labor Saving Machines

The Coming Conventions of the American,
the Southern and the Central Warehousemen's
Associations

Functions of the Modern Warehouse

British War Horse and Mule Losses in Trans-
port and Fighting Service Are Only 1½ Per
Cent a Month



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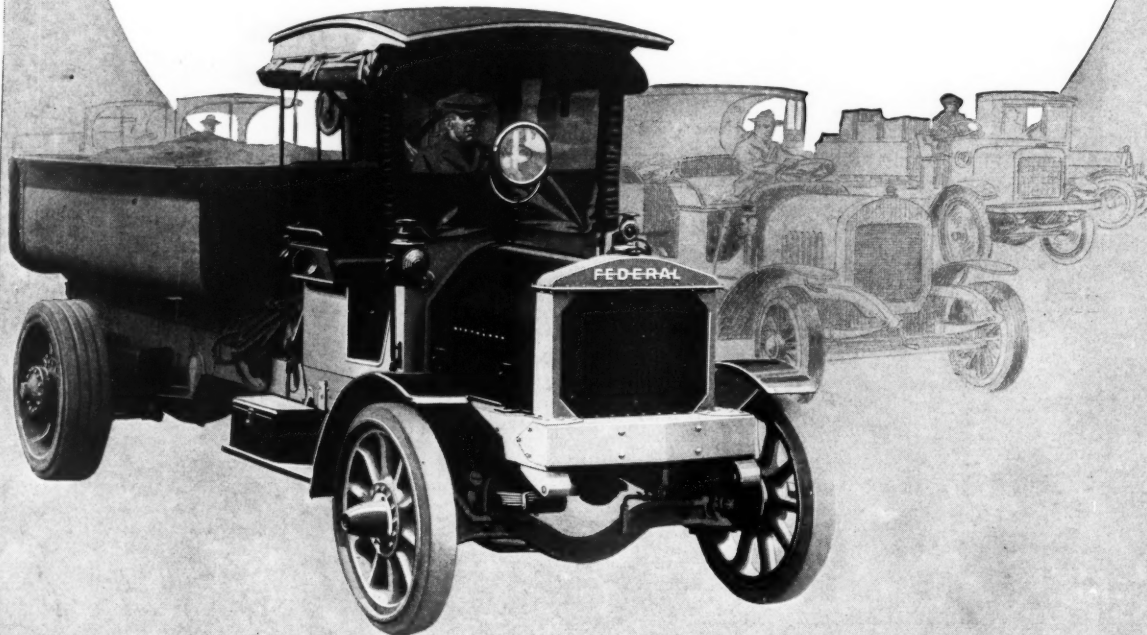


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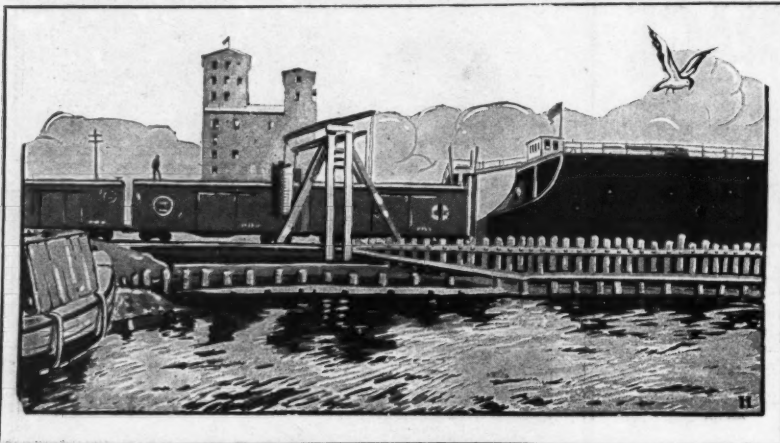
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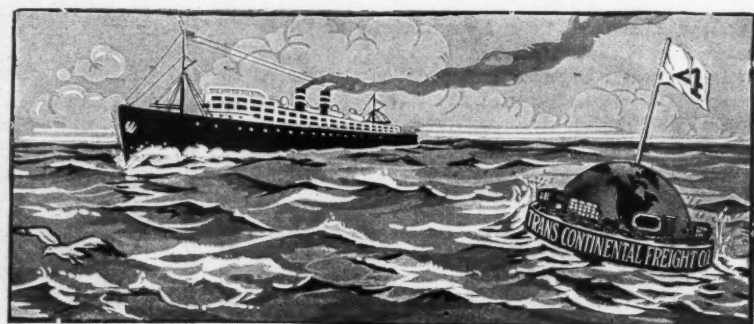
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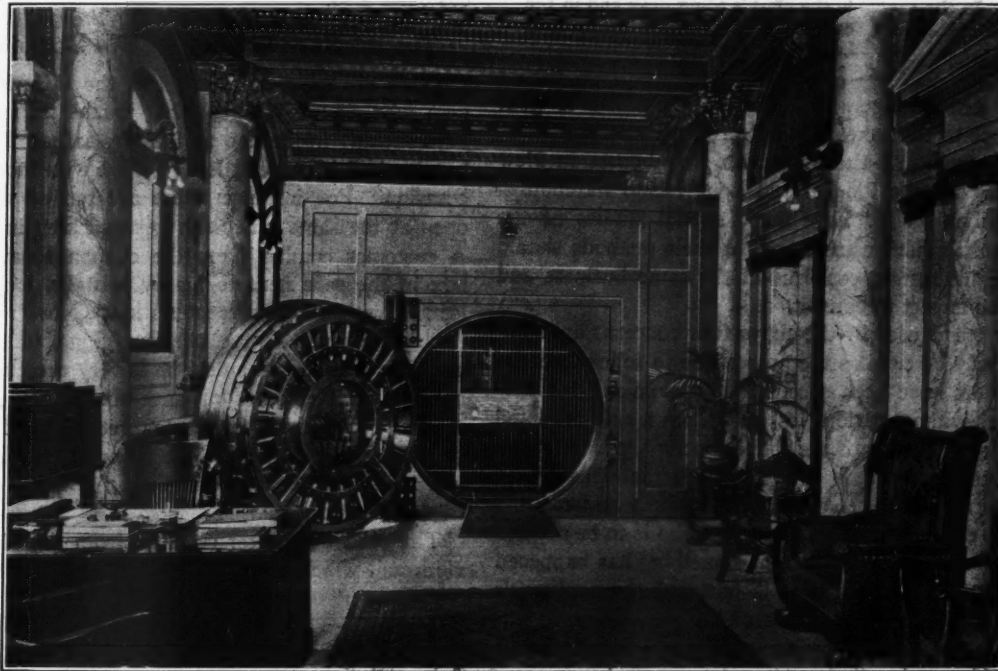
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NEW YORK, N. Y., NOVEMBER, 1917

No. 11

Safe Deposit Vault Offers Lucrative Side Line for Warehousemen

Success Depends Upon Proper Warehouse Location and the Thorough Knowledge of Law and Modern Business Methods

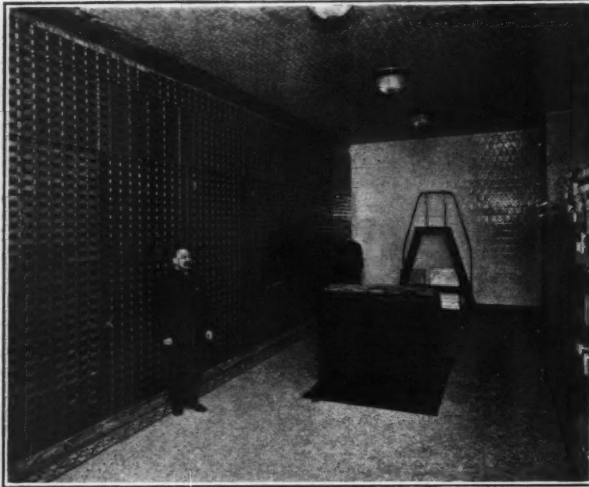


The elaborate corridor of the Long Island Warehouse showing the armored steel door equipped with four time locks. Note the massiveness of the door

THE installation of a safe deposit vault in a household goods storage warehouse offers a lucrative side line provided the warehouseman is located in the business section of the city where business men can deposit their valuables with maximum convenience and provided the warehouseman makes a complete study of and understands all the requirements necessary to insure and protect himself from losses. While most of the safe deposit vaults are under the management of banks, there is still a future to the household goods warehouseman in this field if he operates vaults along the proper lines.

The establishment of a safe deposit vault opens up a well-paying business, and yet one in which a single mistake in management will often result in forcing the warehouseman out of business. One serious loss of goods which has to be paid for by the warehouseman might wipe out his entire profit for several years.

One of the most important details in the operation of a safe deposit vault is to obtain proper references and credentials from the prospective box renter. Another detail of perhaps equal importance is the necessity of keeping records of each customer and of knowing each



The interior of the Pioneer Warehouse vault, showing the small boxes for individual box customers on the left, and the large safes used by business houses on the right. In the center is the clerk's filing desk and in the rear a step-ladder for easy access to the upper tiers of boxes on each side

so well that strangers will find it impossible to gain admittance to the boxes without proper authority.

The Lincoln and the Manhattan warehouses in New York City and the Pioneer and Long Island warehouses of Brooklyn, N. Y., have made special studies of the safe deposit vault business so that their methods should prove of interest to concerns in the same business and those who expect to enter it.

The systems used by the above four concerns are similar and may be cited as the proper one to follow because these vaults have been successfully maintained for several years without serious losses. When a safe is rented to a customer by any of the above concerns, proper references must be secured. These include the signature of the applicant, also his home and business address and the name of some responsible person who is to be notified in case the company learns that something has happened to the renter. Careful note is taken of the applicant's general appearance and of his or her willingness or unwillingness to answer proper questions. Many of the undesirable can be eliminated at the outset if the person who first deals with them is a good judge of human nature and exercises careful discernment which he ought to possess.

The System of Identification

At one time it was a rule with quite a few concerns not to rent a safe deposit box to a person who could not write his or her name. Recently this rule has been abandoned and the finger print method of identification has been adopted in its place. This has worked out with excellent result.

To gain access to the safe deposit box the customer first goes to the identification counter and hands the key of his safe to the representative in charge, who in turn

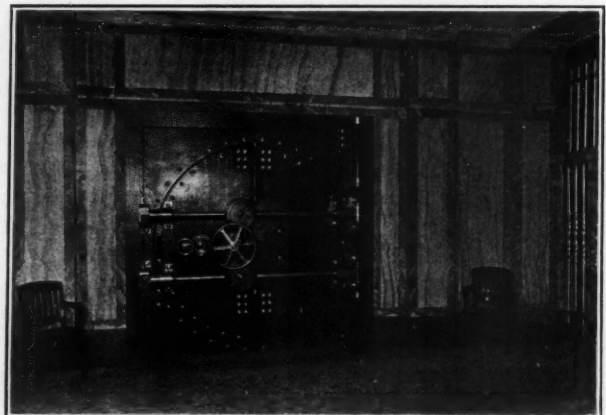
gives him a card for his signature to be written on, after that the representative compares the signature and also his general appearance with the record he has on file. If these correspond and the representative is satisfied, he stamps the number of the safe deposit box on the card that the customer has signed. This is done by means of a time clock. He then returns to the customer the key and the card which serves as a pass to the vault.

This card and key are given to the vault attendant who opens the safe and withdraws the box, and at the same time directs the customer to a coupon room. Some concerns allow the renter to leave his key sticking in the door of the safe while he is in the coupon room. Other concerns make a strict rule that the key is never allowed to remain sticking in the safe door, and when a renter carries the deposit box to the coupon room he is compelled to take his key with him. This is worth the little trouble that is attached to it as it eliminates a great deal of trouble and worry, not only for the concern but the customer also.

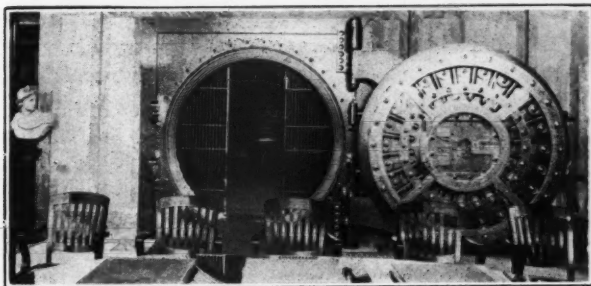
The Result of Leaving Keys in Doors of Safes

There are quite a few men in the safe deposit business who do not realize what trouble can arise from keys sticking in the doors of empty safes. This method has resulted in a great deal of trouble on more than one occasion. For instance, there are ten or twelve safes open at the same time with keys sticking in each door. A customer coming from the coupon room places his box in the safe next to his by mistake, locking it and leaving with the other renter's key. Now, if the renter having the next safe does the same thing, and the chances are even that he will unless he is very careful, they have not only changed safes but have mixed up the company's records. When either renter returns and hands in, we will say key number 350, when he should have 349, you can see the troublesome little mixup the concern has to straighten out.

The card the renter receives from the identification clerk and which serves as a pass to the vault and which



A front view of the armored steel door that guards the entrance to the Pioneer vault



The Pioneer vault door showing the combination locks and bolt-throwing mechanism. In the foreground is the directors' room

is given to the attendant, is filed, so that the concern knows how many times the safe was visited, the exact time of each visit, the date and by whom visited. These records are kept as long as the vault is in operation, and it is a good suggestion that all companies in this business do the same, especially where there is more than one person that has access to the safe.

The Coupon Room and Its Conveniences

After the customer enters the coupon room the door locks automatically and cannot be opened on the outside except by a key. Thus thieves cannot sneak in and snatch valuables or papers from off the coupon room table, as might be the case could the doors be opened from the outside without special keys. The partition dividing the different booths or rooms is run direct from the floor to within a few feet from the ceiling, and is covered overhead with heavy iron mesh, thus also insuring the renter absolute safety and seclusion from the outside and above while examining the contents of private safes.

In addition to the usual comforts and conveniences there is in most cases a telephone in each coupon room, and if the customer desires, either maid service or stenographer. These are also provided at a reasonable rate. These conveniences do not cost much and yet are great business getters, for vault renters as a rule appreciate good service.

The Construction of Vaults

The vaults of three of the companies previously mentioned are located on the ground floor or street level of the building proper. The Lincoln Company, however, have a second vault directly above the one on the ground floor. The average dimensions of these vaults are 15x30 feet, which is sufficient to hold between 4,000 and 7,000 boxes, each 22 by 4¾ inches with a depth from 2 to 4 inches. The material used in the construction of each vault is between 1,000,000 and 1,300,000 pounds of steel and concrete, so anyone may readily see what unusual safety, strength and solidity these vaults possess with this great amount of steel and concrete.

The entrances to the vaults are guarded by doors which are the wonder of the vault-building fraternity. Some of the doors weigh approximately 35 tons. Another one of its wonderful features is the fact that it can be swung by the use of a single finger. Still another feature is the combination locks and bolt-throwing mechanism on the door jamb and time lock on the door proper, making it necessary to put holes through both the jamb and the door in order to reach any of the operating mechanism.

To provide against the possibility of a lock-out, one of the above concerns has installed an emergency square-shaped door at the rear of the vault. This door is smaller than the main door, but of equal thickness and strength.

The interiors of the vaults of the above companies are different, some being divided into aisles lined with safes from the floor to the ceiling. Others have the safes built around the walls of the vault, leaving the center for office fixtures, files, etc. The safe deposit box varies in size and ranges from the 22x4¾ inch, to the 2-foot square safe, such as used by large business houses. The rates for safe deposit boxes vary, but they are generally based on the square inch. The rates also vary somewhat according to the warehouse rental.



The entrance to the main vault of the Manhattan Warehouse, showing the door time locks and bolt-throwing device. Before this vault is reached the customer has to pass through an outer door that is always locked and cannot be opened from the outside except by a special key

A brief history of the foundation and growth of the safe deposit system with a passing survey of its principal institution in the great metropolis internationally conspicuous as our representative American city, is indispensable, since intelligent treatment of the safe deposit subject demands that it be comprehensive, touching upon past as well as present conditions, cause and effect being indissoluble.

History of Deposit Box Development

To the late Francis H. Jenks, the title of "Father of the Safe Deposit System" must be accorded by America, if not, indeed, by the entire world. Counterclaims have been made, but not authenticated, according to John T. Carter in his book, "The Cave of Aladdin." He goes on to say that the safe deposit records of Europe present no clear case of institutional primogeniture, no convincing proof of incorporate antecedence to conflict with America's right to initial honors. Some weak spot in the armor of argument seems to refute her most specious contestants. Moreover, national signs and probabilities are all in her favor. The

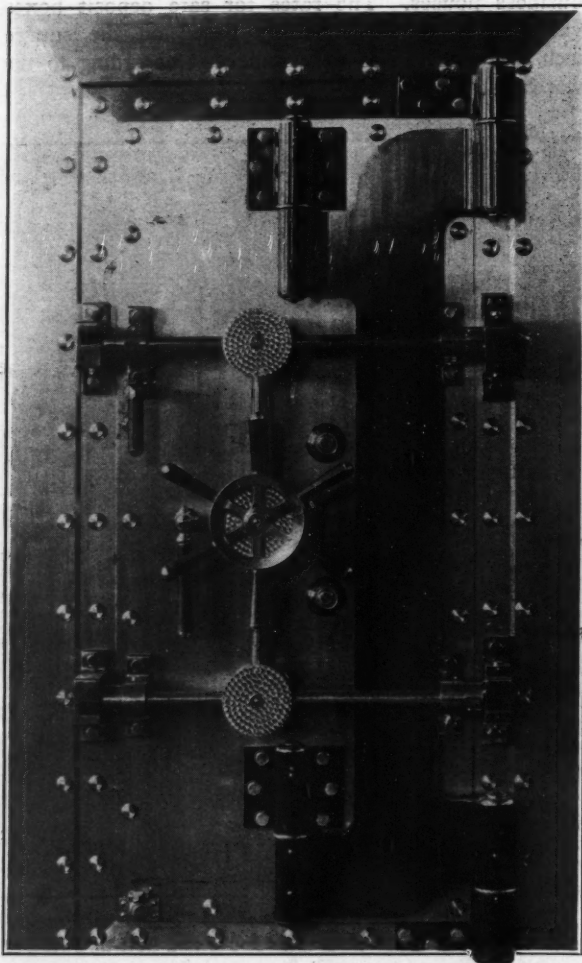
safe deposit proposition could not but have been startling to the public, since its stupendous demand was for supreme and implicit confidence and trust, before proof of good faith and honest intention could be presented. The noble spirit that responded with intelligent sympathy to the new idea, the spirit that dared to take chances was at once characteristic and worthy of America. In any case America now reaps the reward of her initiative genius or powers of assimilation and developments, in the many illustrious institutions that are the utilitarian ornaments of our cities and larger towns. The process of this institutional evolution from informal methods originally obtaining, when the safe deposit instinct was manifested by a more simple and primitive public, is a quaint and interesting one to follow.

Our Primeval Safe Deposit Service

Old shanties still stand along the waterside, old road-houses lift their signs by deserted roads and defunct ferries, old markets pass their stalls from fathers to sons, all of which have many a tale to tell of primeval safe deposit customers forecasting the system that appeals to present generations. Dealers with stands, sheds, etc., docks, piers or stations beginning to take charge of packages of value as a mere accommodation to passing friends and acquaintances, found strangers offering to pay them for an extension of this service. Soon such a congestion of daily deposits strained the capacity of the stands that at a dinner hour, the embarrassed custodians transferred to their homes such trusts as were not to be reclaimed for the night that new deposits might be accepted. In this way the private dwellings of each trustworthy dealer in popular wares became a storehouse of properties of the public. The hut or frame houses of the early citizens thus represented our modern cave of Aladdin.

Ship-chandlers, grocers, liquor dealers and other tradesmen patronized by business men, travelers, etc., soon began to extend the deposit accommodations to their customers free of charge, yet with a canny regard for their own profit. The higher the figure covered by the customer's purchases the larger the space at his disposal in the safe or on the shelf.

Railroad stations, hotel cafes, etc., next began to care for the deposits of the floating public, but fireproof safes were rare, fire insurance did not cover securities of books of accounts, and hotel proprietors were responsible merely for accounts sufficient for trading expenses. Several banks then began to extend a deposit service for the convenience of their customers, but assumed no liability in case of loss by fire or theft of the valuables entrusted. Yet at the approach of the bank's closing hours it was not unusual to see a long line of men filing past a chute into which each in turn dropped his tin cash box or sealed package of bonds or other valuables. These consignments sped down to the bank vault, where a porter stood catching them as they came, and stacking them up for the night. On the way to business next morning, the owners reclaimed them; and thus the de-



This door guards the Lincoln Safe Deposit Co.'s vault on the mezzanine floor of the building. This door is said to be one of the strongest in the country

positing public was established as a distinct class of civic community. At first this class grew slowly.

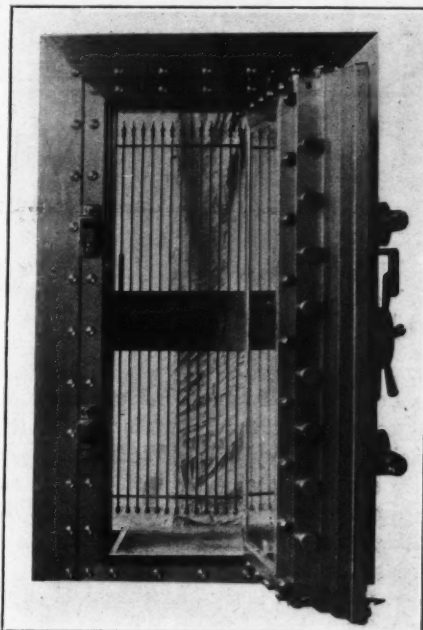
Later a few banks opened what was virtually responsible safe deposit departments but on a financial basis far more profitable to themselves than modern rates give the present system.

The Appreciation of the Safe Deposit Advantages

The man of the hour, as already has been said, was Mr. Francis H. Jenks, who, in New York City, in 1861, founded the first incorporated safe deposit company, under the title of "The Safe Deposit Company of New York." The appreciation of the safe deposit advantages, however, was evident from the first. The United States Government, for instance, was one of the early patrons of the system. Its old assay office on Wall Street proved inadequate for the demands made upon it and its silver overflow was the prize of the Mercantile Safe Deposit Company, which had the advantage of being near. It became a common sight on Broadway to see large, heavy

trucks drawn up in front of the Mercantile Buildings for unloading kegs of coin and bars of silver weighing from 60 to 80 pounds apiece, each load worth a fortune.

The charge for this accommodation was 1 cent a day for each bar or keg. As several thousands bars or kegs could be stored in a single vault, it can readily be seen that the Mercantile netted quite an income from such deposits. Other safe deposit companies stored bullion for private concerns, selling companies, etc., and thus the important trusts of the system were inaugurated. In past years the greater portion of the safe deposit box renters were the wealthy people. But this has changed. The workingman, instead of keeping his valuables, papers, etc., locked up in a dresser drawer and always having to worry about being visited by fire or a thief, has begun to see the advantage of the safe deposit box. He is now the greatest user. The rates for a safe deposit box are so reasonable that there is no reason why every private family and business firm should not have one.



This is the entrance to the vault shown in the illustration on the opposite page except that the door is open instead of closed

British War Horse and Mule Losses in Transport and Fighting Service Are Only 1½ Per Cent a Month

THE September issue of the *World's Carriers* quotes the reply of Mr. Macpherson in the British House of Commons to five questions asked by Colonel Sanders concerning the loss through death of horses and mules purchased for the Army. These figures are interesting because they set straight the exaggerated rumors of enormous losses in transport and in service. The actual losses are shown to be less than 1½ per cent. per month. Mr. Macpherson's statement follows:

"I am glad to have this opportunity of making a public statement with reference to an article which appeared recently in a weekly paper, and has been quoted by other papers, and from which my honorable and gallant friend has evidently taken the figures upon which he desires information. It is true that upwards of a quarter of a million horses and mules have died or been destroyed or cast and sold in the various theatres of war in the last three years.

"This is roundly 25 per cent. of the total numbers required by the Army, and the wastage works out at less than 1½ per cent. per month on the monthly strength since the outbreak of the war, or 16 per cent. per annum. Commercial firms estimate annual replacements at 20 per cent., and I am informed that the wastage

of two of the largest railway companies' stables last year were 19½ per cent. and 17½ per cent. respectively. The figures of wastage in our Army in the three years of this war are therefore, extraordinarily small, and have never been approached in any campaign in history.

"The loss of horses purchased in America before shipment has been 5 per cent., and the loss on sea 1 per cent. Every animal bought in America has passed through the stock yards, and been exposed to infection of influenza, or what in that country is known as 'shipping fever.' Immediately after purchase they are removed to large well-equipped depots, where they live under the healthiest possible conditions. A large percentage, however, develop influenza or pneumonia in a more or less severe form, and in spite of veterinary care, the percentage stated have died.

"When we consider the epidemic to be combated among freshly-bought horses in America—e. g., gangrenous dermatitis, pastular stomatitis, influenza, pneumonia, and strangles—when we add to these risks the distance travelled, the changes of climate and altitude, railway accidents, and attempted poisoning by enemy agents, and when we remember the numbers handled, we can only marvel that the loss has been so small. It is chiefly due to the system of keeping our purchase till

(Continued on page 40)



To Build or Not to Build

DURING the past year reports have come to us from the big distributing centers and seaport cities that warehouses have been taxed to capacity. In many of these cities there has not been sufficient space to accommodate all of the business that has been offered to warehousemen. Present indications are that this condition will not be relieved so long as the war lasts, at least. On the contrary, there will likely be a bigger volume of business for warehousemen as the war work, which has really just begun in this country, progresses.

New buildings to accommodate this increased business have been planned by warehousemen in nearly all of our cities but the contracts have not been let for the new construction, both because of scarcity of materials and labor and because prices for building materials have been from 40 to 60 per cent higher than they were prior to 1914. As the war progresses it is likely that construction material will increase in cost and those warehousemen who can use the additional space have been debating in their minds the wisdom of contracting for any new construction until after the war.

In some cases the delay in building is not so much for the lack of capital necessary to construct the proposed warehouses as the future possibility of earning an adequate return on the greatly increased investment that a warehouse building at this time would represent. So long as the war lasts the increased demand for storage space would make it possible for a warehouseman to obtain a high rate of income that would earn a good return on this increased investment. The great question, however, that each warehouseman is asking himself is "how long will these high rates hold?"

Statistics are oftentimes misleading but they serve as our best guide in connection with the phrase "history repeats itself." It is interesting to compare the rise in the cost of building materials during the Civil War with present increases and to observe the rate of decline in these prices during the years following. The Faulkner Price Table, which was prepared for the government about 1893, uses the year 1860 as a basis of 100 per cent. This shows that building materials increased in cost from 1860 to 1864 to

221.3 per cent, which compares somewhat with the recent increase in this country since 1914.

We have not yet reached the 221 per cent peak but we will if the war lasts long enough. In 1865 these costs dropped back to 182.1 per cent and from that year there was a gradual decline in prices for the next fifteen years, reaching a low mark of 115.1 per cent in 1879, never again, however, reaching the 1860 level.

We may judge from these figures that building costs will decline following the war. We may also judge that this decline will be gradual and that cost of construction will never be as low as it was in the years 1913-14.

The warehouseman who has been postponing his construction during the last few years is placed in a peculiar position. He knows that he can make a good return on his building even at the present high cost of construction so long as the present demand for space continues, because he can secure a high rate for his service.

If he should build today and this demand should last for the next five years, he could undoubtedly earn a sufficient return to write off part of the investment in his building and in that way reduce the overhead charge on his business to conform with the investment that would be represented by a building constructed five years from now. In the meantime, this warehouseman would be more firmly entrenched in the community and would be in a better position to meet competition by being established in his new quarters at this time.

The advice to be deducted from the foregoing, if we can trust history to repeat itself, is to build the proposed warehouses, providing the proposed buildings are located in cities where the present demand for space is great enough to assure a sufficient volume of business at rates that will make a return on the investment plus an amount that will reduce the investment in proportion to the decline in future costs of construction.

Scarcity of building materials makes it next to impossible to build just now, even though the warehouseman is inclined to undertake the venture, although some warehouses are being built and will be able during the next few years, at least, to obtain business at the high rates that present demand for space is producing.

Storage Committee Tells How Efficiency of Warehouses May Be Increased

PRINCIPLES of storage applicable to army supplies, as proposed by Morris L. Cooke, chairman of the Storage Committee of the Council of National Defense, would be a great assistance to the merchandise warehouseman if adopted. These rules, if properly followed would mean an increase of stowing capacity, a reduction of time in handling merchandise, and would install a real system of uniformity. In fact, they would give the warehouseman greater efficiency in every department.

The principles of this system are as follows:

1.—**Definite Space**, preferably marked, reserved for:
a. Moving. Aisles should, preferably, be straight, and only wide enough for actual requirements.

b. Storing.

c. Receiving. When necessary to hold material awaiting disposition.

d. Assembling. When necessary to hold material awaiting delivery.

e. Shipping. When necessary to hold material awaiting shipment.

2.—**Identification**, clear and complete, of every item.

3.—**Location** of an item governed by:

a. Difficulty of handling.

b. Quantity to be carried.

c. Frequency of use.

d. Special considerations, as of sensitiveness, perishability or peculiar similarity to other items.

4.—**Immediate accessibility** of each lot of every item. This means:

a. Goods will be stowed in issuable units.

b. Each item (and each lot where practicable) will be kept distinct. Therefore, a unit of one item or lot will not be stowed on top of or in front of a unit of a different item or lot.

5.—**Defined methods**, covered by written instructions, of **placing and removing** various classes of items.

a. Uniformity—always piling the same things the same way.

b. Distinct separation of each lot, so that old lot may be used first.

6.—**Flexibility in arrangement**. This is secured by having storage spaces rectangular, and in area whole multiples of a standard rectangular unit. Bins, platforms, and floor spaces will then be interchangeable.

General Instructions for Handling Stores

1.—**Storage Space**. Stores are stowed only in the lettered spaces reserved for the purpose. This means that window sills, ledges, floors and aisle spaces, etc.,

(unless specially provided) are not to be used, either permanently or temporarily, for keeping goods unless the tag on the goods bears the signature of the superintendent authorizing the use of such space for that purpose. Tools or equipment in regular use in store rooms will be provided with special places, marked so as to show the purpose for which reserved.

2.—**Counting**. All goods will be counted before stowing, and the quantity entered on the tag.

3.—**Placing**. The placing of any item of stores depends on the shape and character of the article, and the nature of the storage place. On the floor are placed cases of flat paper, and other cases and crates of such size and weight as to be apt to break the platform in handling. All other stores, except those stowed in bins or on racks, are placed on platforms. These are largely goods of bulk and weight, such as sometimes require more than one man to handle and pile (e. g., barrels, rolls of paper, bags, bales, bundles, and ordinary cases and crates). Small stores, such as boxes, packages and supplies, are put in bins. Articles of unwieldy length, like iron piping, are placed on racks.

4.—**Special**. Articles should never be stowed in a position which might cause injury to them.

5.—**Piling**. In stowing goods, the greatest economy of space is secured by piling up as high as is consistent with stability. This is done wherever possible, thus leaving a maximum area for different groups and kinds of articles.

6.—**Group Piling**. Stores are piled singly or in multiples of five. Goods may be piled singly up to ten in a column. Beyond this the columns are made as high as the space will permit but of whole groups of five only. Groups are not broken to fill in a remaining space too small for a whole group. Thus, every column of articles small enough to be piled in groups of five will contain some multiple of five and will be uniform.

7.—**Accessibility**. Goods will be placed so as to be as easily accessible as possible, those more frequently used being in the handier locations.

8.—**Minimum Handling**. Consistent with the above, they will be placed so as to require as little handling as possible in receiving, stowing and removing. Other things being equal, heavy, bulky goods will have the shortest haul.

9.—**Uniformity**. The piles and rows of any item will be of uniform quantity for ease in counting.

10.—**Concentration of Stores.** In stowing a bulky item of stores in quantity, effort will be to concentrate it. Thus, two half platforms opposite each other (across a side aisle) will be filled in preference to one whole platform. Any excess over one platform full will then be stowed in the aisle between. The effort will be to find two empty whole platforms opposite, which will be filled, and the excess stowed in aisle between.

11.—**Side Aisle.** Side aisle may be used for stowing when the sections on either side are full of the same material.

12.—**Main Aisles.** Main aisle space adjoining a wall may be filled out to parallel full rows and aisles of the same material on either side. Platforms will be placed for goods stowed in aisles.

13.—**Removals.** Removals will be made from aisle spaces. No goods will be removed from a regular row until adjoining aisle spaces have been entirely cleared.

14.—**Stowing Area.** In any area to be filled stowing is commenced at the back left-hand corner, and brought forward, each row of goods being completed to the front before a new row is started. Piling is done as soon as the nature of the goods permits and as high as possible so long as the piles are stable, the uniform groups are preserved, and the pile does not come within sixteen inches of the sprinkler pipes.

15.—**Stowing Volume.** In any cubic space to be filled, stowing is commenced at the back left-hand corner, and carried on vertically until one column is completed. This is made the first of a row of such columns brought to the front and completed. The second row of columns will commence as did the first.

16.—**Several Items.** If there is room in any single storage space for more than one item, the second is stowed similarly to the first, but beginning at least one inch to the right of the area required for the first item. Additional items will be stowed in the same way.

17.—**Maximum.** The maximum quantity ordinarily stowed will occupy not more than 75 per cent. of the space available. The remaining space is reserved for times of special need.

18.—**Reversing.** Goods will be placed all one way, unless for stability in piling it is necessary to reverse part of a column. Such will be reversed, singly or in groups of five, according as they are regularly piled singly or in groups. The same dimensions, however, will lie the same way.

19.—**Uniformity.** All articles of one kind will be placed uniformly. Preferably the width of the article is made to lie the long way of the storage space. If, however, space is economized to a marked degree (at

least 25 per cent.) by placing the articles some other way, it may be done.

20.—**Labels.** Labels, or other means of identification, will be placed all one way, showing outward if consistent with other rules.

21.—**Lots.** Different lots of the same items of stores will be kept distinct and separated by a space of at least one inch if in bins, or three inches if on platforms. Each lot has its own separate tag and lot number.

22.—**Columns and Rows.** Each full column of goods will have the same number of articles as each other, and each full row will have the same number of columns as each other. Only the last row and column may remain incomplete, containing odd quantities.

23.—**Wrappings.** Articles with defective wrappings will be placed last, in order that they may be removed first. The person stowing goods is responsible for seeing that the tying or wrapping on packages is in as good condition as his facilities enable him to secure.

24.—**Removing.** In removing goods from storage, in any one lot the last goods to be put in place are removed first, and further removals are made in just the reverse order to that in which they were placed. This means the cleaning up of incomplete before complete columns and rows are touched. In the case of more than one lot of any one item, the lots are drawn from in order of age, commencing with the oldest, unless otherwise specified on the issue. Not until all the goods of one lot are removed from any part of a storage space and the tag removed, is that part available for stowing a new lot.—*The Efficiency Magazine*.

Blanks for Efficient Car Loading

A New York manufacturer in sending out his fall catalogue loaded the entire shipment for Western customers in one freight car where two had usually been required. This car carried 94,839 catalogues.

More than 20,000 business firms have adopted the performance record blank of the Railroad Business Association, under which their shipping clerks are able to keep a score of efficient car loading. This score is being kept on loading of lumber, brick, grain, flour, hay, iron, steel, hardware, vehicles, cloth and yarn, chemicals, autos, accessories, furniture, garments, glue, stoves, paper, stationery, confectionery, machine tools, etc.

Hay Freight Rate Advanced

The increase in the freight rates in Central Freight Association territory permitted by the Interstate Commerce Commission will affect hay and straw in carloads and products taking 5th class rate. The amount of advance ranges from 30 cents to \$1.30 per ton.—*Hay Trade Journal*.

Useless Waste of Warehouse Man-Power Reduced by Labor Saving Machines

Authority Cites Experience to Demonstrate Benefit to Be Derived from Application of Proper Machinery for Transferring and Storing Purposes

By F. C. Meyers

A STORAGE man in the South was confronted by the problem of handling 983 bags of coffee which had just arrived from Brazil. Coffee is shipped in 240-pound bags. Therefore, there were approximately 118 tons. Two electric industrial trucks moved this coffee 200 feet in ninety-eight trips. The time required was 5 hours. Two men drove the trucks and six men at each end of the route loaded and unloaded the trucks. The labor charge was 30 cents an hour per man or \$21.00. Allowing \$1.20 for wear and tear and depreciation on the trucks, the total cost of handling this coffee was \$22.20 or 18 cents a ton.

Each truck carried about 2,500 pounds of coffee on each trip. With good floor surfaces a man on a hand truck might move three bags or 720 pounds. The chances are that one man would move two bags at a time or 480 pounds. The electric trucks operated constantly, while the men on the hand trucks could not have worked 5 hours without frequent periods of rest.

The trucks traveled between 4 and 5 miles an hour. Truckers have a record of an average of $2\frac{1}{2}$ miles an hour. The fourteen men might have moved the coffee in 10 hours. In fact, they moved it in 5 hours. Thus, the labor charge was cut in half and instead of a labor charge of \$42 there was a labor charge of only \$21.

This is an actual occurrence. The figures were gathered from actual observation. The cost of handling material by the old manual method is much greater than by

using the new electric industrial trucks. The investment in equipment is fully warranted, even if the labor of one man is saved.

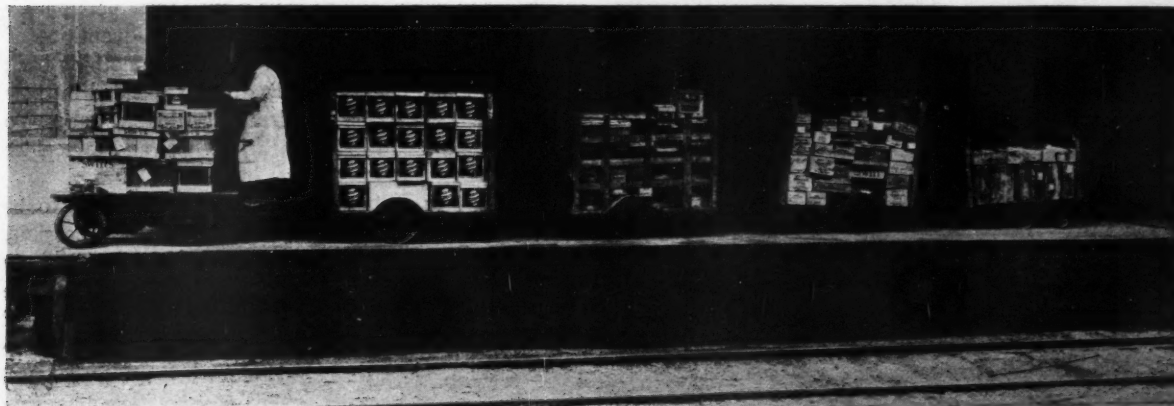
Electric Truck Good Investment

For instance: Labor is now receiving about 30 cents an hour. On the basis of an 8-hour day the labor of one man is \$2.40. Taking 300 working days in the year a man's labor for a year will cost \$720. This is 8 per cent interest on \$9,000. The cost of an electric truck for inside work will range around \$2,000. Therefore, by saving one man's labor and investing in one truck at, say \$2,000, the saving will be at the rate of 36 per cent. Sounds like a gold mine, doesn't it?

The one great difficulty in discussing costs and savings in freight-handling equipment is that so many wonderful results have been obtained that the ordinary man immediately doubts everything that is said. One manufacturer of industrial trucks positively refuses to talk costs and savings, saying that his sales will be ruined along with his reputation for veracity.

The Class of Labor a Handicap

Freight and storage material handling by manual labor depends on two conditions which cannot be overcome. The first is the type of labor obtainable for this work and the second is the physical and mental condition of this labor. Truckers are usually drawn from a class of



One method of handling a miscellaneous lot of material. Note the truck is being used as a carrier and as a tractor. At least ten men would be required to move the same amount of material

men either ignorant or shiftless. They are not prone to take care of their physical condition. They are absolutely without interest in their work, doing just enough to hold their jobs. They require constant overseeing.

On account of their physical condition they are not able to stand up under the heavy work for long periods of time, and must rest frequently. Their pay goes on whether they are resting or working. With the truck, electric current is used only when the truck is working, the batteries never tire and with a proper charging set or reserve batteries on hand the trucks can be operated continuously day and night with slight attention.

Inclined Portable Elevator Saves Time and Labor

Just as the difference in the running time of a through train and a local is due to saving the time required for making stops, just so much of the time saved by the electric truck in moving material is due to its ability to work constantly. In addition to this, trucks travel faster than men pushing trucks. Trucks also carry heavier loads than can be handled on hand trucks. These three advantages are the reasons for the savings that can be, and are being effected daily by users of power transporting equipment in place of the manual-operated trucks.

Another piece of apparatus which will prove an exceptional time and labor saver in those storage houses where large quantities of such things as paper, cement, coffee, canned goods, etc., are stored, is the inclined portable elevator. These are really conveyors mounted

on wheels and adjustable as to height. The movable chain, belt or platform runs constantly in one direction so that an enormous amount of material can be handled in the minimum of time.

Not long ago, one of these machines carried cement up a 20 per cent grade at the rate of over 1 ton a minute. Another machine handling cotton bales, weighing about 550 pounds, moved them at the rate of 206 bales the first hour up to 300 bales an hour when sufficient bales were ready. It was largely a matter of bringing the cotton to the conveyor fast enough.

This cotton was moved 100 feet. One man on a hand truck can move one bale at a time on the level. If a grade is encountered he must have help. This means more labor, at least one man and most likely two if the grade is of any length. Any storage man can see in his mind's eye the saving that was effected by the use of machinery in either of these cases.

In addition to the saving in time and labor, there was a saving in floor space, because instead of standing the cotton and cement on the floor one or two rows deep, the elevator lifted the material so that it could be stacked as high as the strength of the floor would permit. Thus, there was a saving of floor space, a saving of time and a saving of human effort and labor.

Time and Labor Most Important

In these strenuous times the saving of money is not so important as the saving of time and manual effort. At the same time it must not be forgotten that the saving of time and labor plays an important part in the saving of money and the reduction of costs. All the facilities of the United States are being pushed to the limit. The days have become too short. There are 100,000,000 people in our country to be clothed and fed. In Europe there are additional millions depending more or less on the enormous resources of this country and its tremendous capacity to produce and deliver the things necessary to their existence.

In addition to all this, there is the wastage of war to be overcome. Goods consumed in the ordinary wear and tear of use can be considered as having given their equivalent in value, and to have played their part on the production of other goods. In war, vast quantities of material are destroyed outright. They give nothing back for the time and energy that has been expended in their production. Thus, the problem is a double one: To sustain the people at home in their affairs and to replace the destruction that is going on in the field of war.

Labor is scarce, but nothing to what is going to be shortly. Women will replace men wherever possible. They cannot hope to be as efficient at the start. The only method of maintaining the speed necessary to keep the movement of material constant so that the routes of trade will not become completely clogged as to increase the amount of work that can be done in a given time and to make the work easier. This can be done by using machinery.

The accompanying illustrations show some of the ap-

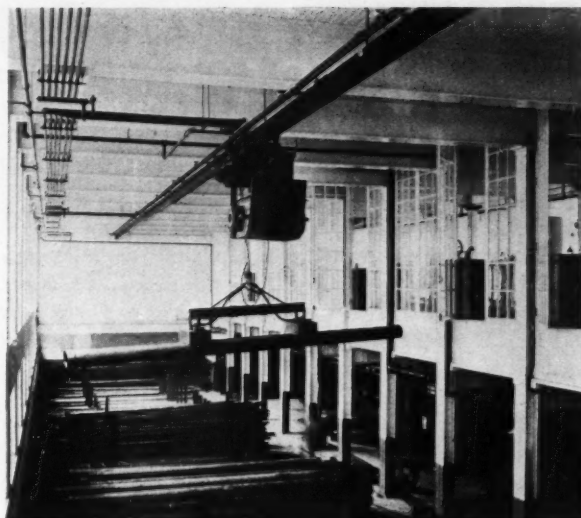


An electrically-operated portable elevator. Note the height to which the paper rolls are being piled

plications of the various forms of machinery that is applicable to transferring and storing of material. The cost figures given in this discussion have been taken from actual installations and have been verified. They are simply indicative of what has been and what can be done.

No one style of truck can be recommended offhand for all installations. Every owner of storage property should consider his conditions and by consultation determine on the type and style of material handling equipment that will best suit his needs. Handling cement and handling breakable material are entirely different problems. Handling one kind of material in large quantities is entirely different from handling a large miscellaneous lot of material.

The author of this article, F. C. Myers, of the Society for Electrical Development, Inc., has made a special study of the various labor-saving devices, such as mentioned in this article, and may be cited as an authority on this subject. In Mr. Myers' next article he will discuss the various types of elevators and conveyors used.



A pipe storage warehouse. Electric magnets are being used in connection with the overhead traveling hoist

Universal Co-operation Necessary to Overcome Transportation Deficiencies

WITH crops not yet moving freely, with only a fraction of our new army sent from home, with our whole national war effort yet unplanned and unmeasured, war production is already hampered by shortage of cars and locomotives, lack of ample terminal, storage, and other facilities. Newspapers almost daily report mills closed or running part time, mines restricting needed output, shipbuilding delayed.

Our voluntary Association of Railroad Chiefs is unselfishly using every effort to correct the accumulated mistakes of the past which have made for inefficiency and waste. More and more the railroads are operating as a single national system, and soon will be doing all that can be expected of them because interests of different railroads must sometimes conflict, and their chiefs must still consider themselves trustees of stockholders' interests.

Railroad competition for freight has in the past enabled shippers to obtain unreasonable demurrage, switching, rebate, and other privileges. Minimum carload ratings have been far below normal load-carrying capacity; whole trains of empty cars have crossed the continent even in times of great car shortage; political, financial, and various local influences have interfered with good business management, with fair rate making; and many other disadvantages have arisen which the public chiefly has paid for in one way or another. Some of these errors have been corrected by Mr. Daniel Willard's Transportation Committee of the Council of National Defense. The basis of Mr. Fairfax Harrison's showing of in-

creased loading and mileage per car is chiefly the increased cooperation in place of obstruction by shippers.

But when all that is done, when unnecessary passenger trains, dining and parlor and private cars have been eliminated, when available freight cars are used wherever needed regardless of ownership, when shippers have pooled coal and, perhaps, other shipments, even then our railroads cannot meet the total demand, and the worst is yet to come. Nobody has yet figured what the total needs are. There is no totaling committee or individual with power and assistance and vision to comprehend this Promised Land of Trouble ahead.

Supplementary Service

Italy, where coal is costing \$100 per ton, is feverishly developing her water power to supplant coal in her locomotives and factories. In this country are thousands of water powers, which could be developed before the effects of this war will end. Twenty-five to fifty per cent of the freight traffic of some of our railroads consists of coal. Every device for relieving our transportation facilities of the burden of coal carrying, every effort to make each ton of coal deliver the utmost service, every attempt to burn other materials available locally in place of coal, aid in shortening the war and saving life.

In America, only slight progress has been made in using all our facilities to serve the community. Express and freight handling on electric railways must receive increasing attention, but as yet less has been done than

(Continued on page 36)

The Excess Profit Tax —How to Find It

These Rules Show Warehouseman How to Figure His War Tax

There have been so many rulings and counter rulings and so many proposed excess profits taxes that it behooves every warehouseman who earns over 7 per cent on his investment to study the rules given herewith in order that he may be prepared to compute his own war tax properly.

The tax is based upon the earnings in the pre-war period and varies according to the form of companies, such as corporations, partnerships and individuals. In any case, profits over 15 per cent will be taxed as set forth below.

The invested capital and net income for the taxable year, and the average rate of income for the pre-war period (1911-1913, inclusive), must first be determined, according to the technical rules prescribed in the Act.

I. Find the rate per cent earned on the invested capital, by dividing the net income by 1% of the capital.

If the rate earned is less than 7%, there will be no War Excess Profits tax.

If the rate earned is not over 9%, and is not greater than the average rate for the pre-war period, there will be no tax.

If the rate earned is over 9%, or is greater than the average rate for the pre-war period, but does not exceed 15%, there may or may not be a tax, depending upon whether the excess over 9%, or over the pre-war rate, exceeds the specific exemptions allowed (\$3,000 for corporations; \$6,000 for partnerships and individuals).

If the rate earned is over 15%, there will apparently be a tax, in any case.

II. Where rate earned does not exceed 15%.

Income equivalent to the pre-war rate (between the limits of 7% and 9%) is exempted. Compute this exempted income as follows:

If the pre-war rate was 7% or less, multiply the invested capital for the taxable year by .07 (7%).

If the pre-war rate was 9% or more, multiply the invested capital for the taxable year by .09 (9%).

If the pre-war rate was between 7% and 9%, multiply the invested capital for the taxable year by the exact per cent of the pre-war rate.

Deduct the exempted income, computed as above, from the net income for the taxable year. From the remainder, deduct the specific exemption of \$3,000 (for corporations) or \$6,000 (for partnerships and individuals).

After these deductions, the remaining income, if any, will be taxed at 20%. The tax will accordingly be one-fifth of such remaining income.

III. Where the rate earned exceeds 15%.

The taxes on the excess over 15% are in addition to the tax, if any, on the first 15%; and the rates vary between 25% and 60%, as follows:

Amount taxed	Income between	Taxed at
Next 5% or less	15% and 20%	25%
Next 5% or less	20% and 25%	35%
Next 8% or less	25% and 33%	45%
Remaining income, in excess of 33%		60%

War Tax on Facilities Furnished by Public Utilities

That from and after the first day of November, nineteen hundred and seventeen, there shall be levied, assessed, collected, and paid (a) a tax equivalent to three per centum of the amount paid for the transportation by rail or water or by any form of mechanical motor power when in competition with carriers by rail or water of property by freight consigned from one point in the United States to another; (b) a tax of 1 cent for each 20 cents or fraction thereof, paid to any person, corporation, partnership, or association, engaged in the business of transporting parcels or packages by express over regular routes between fixed terminals, for the transportation of any package, parcel, or shipment by express from one point in the United States to another: *Provided*, That nothing herein contained shall be construed to require the carrier collecting such tax to list separately in any bill of lading, freight receipt, or other similar document, the amount of the tax herein levied, if the total amount of the freight and tax be therein stated.

Eight Ways to Save Gasoline

Automobile clubs are getting after the "gasoline slacker," and the following eight rules have been prepared for the guidance of motorists who wish to be economical, by Mancius S. Hutton, laboratory engineer of the Automobile Club of America:

1. Do not allow the engine to run idle, except when absolutely necessary.
2. Run the car on a lean mixture.
3. Prevent leaks in the gasoline line, and shut off gasoline at the tank whenever possible.
4. Keep the motor free of carbon. A carbonized motor is a large consumer of fuel.
5. Change gears more frequently in order to run the engine at high, economical, and efficient speed.
6. Keep the moving parts well lubricated.
7. Keep tires properly inflated.
8. Use kerosene for cleaning instead of gasoline.

Removing Food-Fire Hazards

Grain elevator fire hazards may often be removed with a little investigation and care, such as inspecting the stoves and putting in new stove pipes when fires are started in the fall, and taking other simple precautions. As an instance of how fires which are re-

garded as unimportant may affect the food supply, a case is cited of a recent elevator fire where the grain company was congratulated because it had fire insurance and lost only 33,000 bushels of wheat. If people could eat fire-insurance money there might be no loss in such a "minor" fire. But considered as bread, that amount of wheat would feed more than 4,000 soldiers for a year, or keep 20,000 Belgians alive through the winter.

New Closing Time For Freight Houses

The railroads of Toledo, Ohio, have adopted new freight house closing hours. Beginning October 15th, outbound freight in less than carload lots will not be received after 12:30 p.m. on Saturdays and 4:00 on other days. Inbound freight houses will be open until 12:30 Saturdays and until 4:30 on other days.

Consider Warehouse Standards

The adoption of standards for warehouse construction in Texas to meet the requirements of the Federal warehouse act, where the warehouses are to come under the supervision of the Federal Government, was considered at a meeting recently held in Austin, Texas, and presided over by Charles J. Brand, chief of the Federal Bureau of Markets. The meeting was well attended, including warehousemen, seedmen, wholesalers, cotton men, manufacturers and bankers. Similar meetings were held in Houston and Dallas.

The Bureau of Markets has adopted tentatively the standards of construction promulgated by the Texas Fire Insurance Commission and used generally throughout the cotton-producing States. At a meeting called by A. A. Andrews, of the Texas Fire Insurance Commission, and held in Houston, in May, 1913, these standards were approved, the meeting being attended by cotton factors and insurance men from all of the Southern States.

Better Mixed-Carload Rules

A great step forward in better utilization of freight facilities, according to the *Traffic World*, will be made as soon as classification committees of the railroads, working with the Interstate Commerce Commission, can make more liberal rules permitting the mixing of different classes of freight in the carlot shipment.

Strict requirements as to loading of cars with a single kind of merchandise works hardship to the small shipper and receiver, who are unable to load or order large lots of a single kind of freight, whereas if mixed shipments were permitted on the car-lot rate they could load cars heavily. Severe rules also penalize the railroads with heavy terminal expenses due to loading small lots of different classes of freight in separate cars. It is believed that out of the splendid cooperative spirit which the war has developed between shippers and railroads a more liberal scheme of mixed freight classification can be arrived at.

Convention of Central Warehousemen

Held at Muehleback Hotel, Kansas City, Mo., November 20-21

The eighth semi-annual convention of the Central Warehousemen's Club will be held this year at the Muehleback Hotel, Kansas City, Mo., November 20 and 21. Secretary Bates urges all members to attend and to send reservations to him at an early date, in order to insure suitable accommodations.

The Central Warehousemen's Club was organized in 1908. The membership of the association is principally in the Missouri Valley and the Middle West, and meets semi-annually in the various cities where it has membership. There is no provision in the constitution for associate members. The members have always been known to be hard workers for the club. Recently they have compiled and adopted a standard rate for labor in and out of the warehouse and storage rates for all commodities.

At this meeting many important subjects will be taken up, and much valuable discussion will doubtless take place. Invitations are extended not only to members but to all warehousemen throughout the country. Request for reservations should be made to Frederick N. Bates, Secretary, 4815 Girard Ave. So., Minneapolis, Minn.

S. F. W. A. to Meet November 26-27-28

The Southern Furniture Warehousemen's Association will hold its fourth annual convention this year at the Piedmont Hotel, Atlanta, Ga., on November 26-27-28. During the past year the warehouseman's profits have been favorable, and by the looks of things this convention will have the best attendance and the greatest time the Southern Association has ever seen. Secretary Cathcart urges not only the members and the associated members to attend, but the furniture warehousemen throughout the country. Requests for reservations should be made to T. F. Cathcart, secretary, 6-8 Madison Avenue, Atlanta, Ga.

Warehouses of War Relief Full

Completion of 16 big warehouses in the new war relief distribution system was announced in dispatches to the American Red Cross from its commission in France. Six of the buildings are in Paris and the others in departments outside of the capital, and all are filled with supplies ranging from medicines, clothes and food to building materials and farm implements. American college men, many of whom formerly drove ambulances at the front, are directing the system.

Motor Truck Service Discussed

Chamber of Commerce and Truck Owners Discuss Inter-City Hauling

A conference was held at the Chamber of Commerce, at which the question of establishing lines of motor trucks between Philadelphia and New York was discussed. More than thirty truck owners, including those engaged in this form of transportation, were present. The conference was called by the Chamber of Commerce through its Transportation Bureau to discuss the possibilities of new lines and to ascertain the sentiments of motor truck owners toward engaging in this industry.

It was pointed out by George P. Wilson, commissioner of transportation of the Chamber of Commerce, that the present traffic conditions which would cause congestion of freight and express service were likely to continue indefinitely, and that no apprehension should be felt by those contemplating this service; that it would be of merely a temporary character.

Mr. Wilson explained that the Chamber was interested in the establishment of additional transportation facilities between Philadelphia and New York solely to the extent of being able to assure shippers that such service exists and is reliable. The Chamber of Commerce does not contemplate any further connection with this form of transportation service. In other words, Mr. Wilson explained, that if a shipper in Philadelphia inquires from the Chamber of Commerce where he can get shipping facilities to New York, the Chamber of Commerce wants to be able to recommend reliable parties engaged in this work.

Look Out for Bill of Lading Crook

A very clever bill of lading crook is operating in the territory of Minneapolis, Minn., and has been bending all his efforts to fleece warehousemen. The following warning has been issued to the warehousemen in that section by the Central Warehousemen's Club. Other warehousemen may save themselves losses by being on the lookout for such a man as the warning below describes.

Recently, a somewhat clever criminal has been attempting to fleece warehousemen with the old bill of lading game. His efforts have not been without success in some instances.

The method of operation followed by this crook is to call on a warehouseman, stating that he has just obtained employment in the city, and that he is having his household goods shipped to him from some distant point. He asks the warehouse company to take care of his household goods for him until he needs them, and gives them what appears to be a bona fide bill of lading covering the shipment. The date of the document indicates that ship-

ment is not due to arrive for a short time, and the bill of lading is to be left with the warehouseman.

The next move is to tender a check to the warehouseman, with the request that it be cashed. In view of the fact that the bill of lading, which has been turned over apparently covers goods several times in value the amount of the check which the crook wishes cashed, warehousemen have, in some instances, handed over the money. Later, the check has been returned as a forgery, and investigation proves that the bill of lading is a spurious one and of no value whatever.

As nearly as can be given, the description of this party is as follows: A very dark complexioned man, clothed in brown suit and hat, about six feet tall, weighing in the neighborhood of 185 lbs. Appears to be from thirty-five to forty years of age. According to last reports, he was smooth shaven; has some gold fillings in upper front teeth. On one occasion he appeared as a neatly dressed man of the working class, and other reports would indicate that he appears to be a man of reasonable responsibility.

Warehousemen should be on the lookout for this man, and if possible have him held, immediately notifying the undersigned by wire.

It is also desired that anyone who has been approached by this party, either successfully or otherwise, should correspond with the undersigned regarding the same.

CENTRAL WAREHOUSEMEN'S CLUB, FREDERICK N. BATES, *Secretary*, 4815 Girard Ave., So., Minneapolis, Minn.

American Warehousemen Meet at Detroit, Mich., December 5

The twenty-seventh annual convention of the American Warehousemen's Association will be held this year at Hotel Statler, Detroit, Mich., beginning December 5. The comfort and convenience of those attending the convention is assured by the selection of the Statler Hotel, which is a new house with 1,000 rooms and ample facilities for handling conventions, etc., and has been highly recommended by the local members. Requests for reservations should be made to Chas. L. Criss, secretary, Liberty and Second Avenues, Pittsburgh, Pa.

Bush Appointed Head of New York Port

Irving T. Bush, head of the Bush Terminal Company, who was appointed executive head of the New York Port War Board by Secretary of War Baker, has entered upon his new duties by establishing headquarters for the board and working out a plan of operation. The first step of the board will be to make a survey of all the shipping and railroad facilities centered around the New York port. All information relating to pierage, storage, and terminal conditions will be collected and classified, so that the board will be in a position to direct and regulate without difficulty or delay the shipment of supplies abroad.

Mr. Bush, as the executive Director of the board, will be practically in supreme control of the harbor's shipping facilities. His work will be similar to that which he has done as head of the Bush Terminal Company, only of a more extensive nature. The representatives of the various departments of the Government on his board will give him a free hand to direct the control of the harbor's resources, as a war utility. Shipping and railroad interests have given the board every assurance of co-operation in the handling of war supplies.

New Rates for Warehouses

A lengthy list of supplemental rates for commodities stored in the Indianapolis, Ind., warehouses has been filed with the Public Service Commission. The rates were indorsed by the Henry Coburn Storage and Warehouse Company, the Central Public Warehouse Company and the Hogan Transfer and Storage Company. Heretofore little attention has been paid to warehouse rates by the commission, but the new personnel of that body went into the matter and some time ago a schedule of rates for storage was filed and approved.

N. Y. F. W. A. Elects Vice-President

Grant Wayne, West End Storage & Warehouse, New York City, was elected vice-president and chairman of the board of directors of the New York Furniture Warehousemen's Ass'n, Inc., at its meeting on October 5. He succeeds John G. Neeser, who has resigned to accept a commission in the United States Army. Mr. Neeser's resignation is given below in full:

N. Y., Aug. 22, 1917.

Mr. Chas. S. Morris,
Metropolitan Storage Co.,
39 West 66th Street,
My Dear Mr. Morris:

I have been commissioned a captain in the Sanitary Corps of the National Army and expect to be sent to France in the very near future. I am therefore obliged, much as I regret it, to ask you to tender to the association my resignation as vice-president and director. Personally I have derived much benefit from attending the meetings, as they have been most interesting and instructive.

Yours truly,

JOHN G. NEESER.

Mail Matter for Soldiers

The Government announces that the proper way to address letters for soldiers in France is to give the number of the company and the regiment, care American Expeditionary Forces. The postage rates are the same as in this country and the name and address of the sender should also be on the upper left hand corner of the envelope.

Southern Warehouse Act Passed

Cotton Warehouses to Be Licensed and Bonded by the Government

Representatives of the United States Department of Agriculture held a conference, October 18, at the Hotel Ansley, Atlanta, Ga., with cotton growers and warehousemen of Georgia, with a view to obtaining the consensus of opinion in regard to the United States warehouse act, recently passed by Congress.

The government officials are making a tour of the South in the interest of the new law, and meetings will be held in all the principal cities. They are required to investigate the sentiment of the South in regard to the warehousing act, and render a report to the Department of Agriculture. The department will frame the law in accordance with the report of the committee.

The purpose of the federal act is to increase the efficiency of the cotton and warehousing business, and place the business on a more uniform and systematic basis. The government proposed to accomplish this result by issuing government licenses to the warehousemen, dividing the warehouses according to classifications, requiring owners to submit their warehouses to inspection by an authorized representative of the Department of Agriculture and require the warehousemen to give bond.

The result of this law, it is said, will prove of inestimable value to the warehouseman and the cotton grower and go a long way toward improving the cotton-growing industry in the South.

In the first place, it is pointed out, a depositor of cotton in a warehouse will be enabled to secure a much better rate of interest. This, it is believed, will result from provisions in the law requiring that warehouses be fully insured and that cotton be kept under shelter.

A further effect of the law will be an increase in the negotiable worth of cotton warehouse receipts.

Prominent officials present at the meeting were D. S. Murphy, executive assistant to the chief of the federal Bureau of Markets and head of the warehousing business in South Carolina; R. L. Nixon, of Carrollton; C. Morrill and A. H. Fast, representatives of the solicitor's office of the United States Department of Agriculture, and J. P. Brown, field agent for the government.

Motor Trucks to Carry Return Loads

A plan which, it is believed, may do much to relieve the congested freight transportation conditions in Connecticut is to be tested by the transportation committee of the State Council of Defense.

The plan calls for the use of private motor trucks in carrying "back loads," or loads on return trips on which the trucks would ordinarily return empty. It also calls for a general utilization of all motor trucks which are idle part of each day or week.

The Modern Household Goods Mover Serves 250 Mile Radius by Motor Truck

Inter-city Hauling of Furniture by Motors Gives Better Service Than the Railroads and Reduces the Cost, Time and Worry to the Customer

WITHIN the past few years the household goods moving man has extended his business to such a large territory that he is now practically doing the greater part of the household goods moving within a radius of 250 miles. Moving goods a distance, such as this, was previously done entirely by the railroads, but conditions have changed. The railroads have been giving poorer and poorer service as their business has increased without a corresponding increase in equipment. The public wanted better service. They were tired of having their goods sidetracked for one or two weeks and sometimes a great deal longer. Not only were the delays costly, but the goods had to be carefully crated, then handled three or four times, usually by different concerns. This not only increased the amount of damage done to the goods but considerably increased the cost of delivering the shipment.

Trucks Give Better Service

Often the customer would ship his furniture a day or so ahead, expecting it to be delivered at his new residence, only to find that it was not there when he arrived. Then, after spending a great deal of time trying to trace it, his only information would be that it was *en route*. About the only thing that he could do after that would be to go to some hotel and wait. This would add extra expense which the customer had not figured on before. So any one can easily see why the public wanted something different.

The household goods moving man has been given a chance to show what he could do, and from all indications he has made good, for he has shown the public that he is capable of doing this work to their satisfaction. He



A Service motor truck with a full van body and carrying light stuff on the top and tailboard

has not only eliminated the worry to the customer as to when he would receive his goods, but also reduced the time of the shipment on the way and the cost of the work as well. It would not be a surprise if within the next few years the household goods moving men doubled the area of territory now covered.

All this has been accomplished because of the efficiency of the motor truck. It has enabled the moving man to give the public a service that it has long desired. It has reduced the handling and rehandling of goods which was always necessary in making shipments by railroads.

The operations necessary in making these shipments by railroads is as follows: The moving man first sends his packers with the necessary packing material to the customer's residence to pack the smaller pieces, such as bedding, silverware, china, bric-a-brac, books, etc. After this the furniture is loaded on to the van, and in most cases taken to the warehouse for the crating of the large pieces.

The furniture is then hauled to the freight station and loaded direct into the box car when it is a full carload. If it is less than a carload, it is unloaded onto the station platform and left to be placed into the car by the employees of the railroad company. This is where the greatest damage is done to the goods.

After the shipment arrives at the city or town it is consigned to, the goods are turned over to a third concern which usually goes through the same operations as the first company, carting to the warehouse for the uncrating of the goods and finally the hauling to the waiting customer. All this work has to be done to prevent damage, especially where the furniture is of any great value.

When the moving man takes an order to move furniture direct to another city by motor truck, he does not handle the goods any more than would be necessary to move them to the next street. This service also elimi-



A 2½-ton Gramm-Bernstein truck with an unusual closed-in cab. The body is 11½ feet long by 6 feet wide. The truck is used in Indianapolis

nates the crating. The moving man can tell the customer to within a few hours off, the time he may expect his furniture at the new address, and invariably he is on time. This is something that is almost impossible when goods are shipped by railroads.

\$1.25 a Mile a Fair Charge

Before a moving man contemplates taking orders of this kind, he should make a complete study of the distances and best routes between the different points. If he does not do this it will be impossible for him to give an accurate estimate that will assure him a fair profit. For this work he should charge a mileage rate plus the hourly rate for loading and unloading. The rate should never be less than \$1 per mile for a small truck, \$1.25 for a 3-ton truck and \$1.50 for a 5-ton truck with extra size van body. Some concerns say it is very hard to get a price that will give them a profit. This may be very true, but in most cases the public knows the service it is receiving and is willing to pay the price.

The main trouble is that some concerns will cut a dollar here and a dollar there, often thinking that they are hurting their competitors, but the true situation is they are really hurting themselves. The concern will soon find out that by running its business that way, and with the high cost of labor and material it will be unable to meet its overhead expenses, not alone make a profit. There are quite a few firms that have adopted a standard rate within the last year, and it would be well for the firms that have not to follow suit.

How to Pack Mirrors

Some of the main points to be followed by the moving man before starting on a long trip is to map out the route to be taken. He should know the conditions of the roads, the location of the country bridges, their headroom and the weight the bridges will hold. Do not take chances by going over a rickety bridge with a loaded 5-ton truck. More than one truck has found its way to the bottom of a stream because of negligence. It is always good practice to carry a block and fall, and a 2 or 3-ton jack, as these will be of great assistance for pulling the truck out of holes, ditches, etc., should it become mired. If the moving man has all the above knowledge, he will save many hours in time and many miles of travel on such trips.

In packing goods, always pack solid and use plenty of wrapping material and pads. Mirrors should be



A 2-ton Packard of the old type with chain drive. It is giving good service for a Brooklyn warehouseman

packed sideways and never facing front, even to the extent of losing space, as the jarring of the truck will cause mirrors to crack, when riding front. The casters of pianos should be padded because there are also broken by the jarring of the truck. If there is anything that has to be placed on the tail-board it should always be the beds, cots and springs, and never a fancy piece of any kind. A lot of men in this business will say, nobody would be foolish enough to do this, but you can see the very same thing done every day.

There should never be less than three or four men sent on a country trip. In this crew there should be a regular truck driver and one other man, who can take the wheel if necessity demands. One man kept at the wheel for any length of time is inclined to become mechanical, then sleepy, and the first thing you know, you are ditched. For safety, always have your driver relieved just as soon as he becomes tired.

Do Not Make Men Sleep in Vans

When on a 2 or 3 days' trip, the moving man should make it a strict rule that the men get a good rest at night. If he does not do this, he should not expect them to be 100 per cent. efficient, and the best he will receive from them will be about 25 per cent. of their usual efficiency. By a good rest I do not mean sleeping in the van, but in a proper bed. Another important thing to be done in advance is to plan where to garage the truck each night. If it arrives at the garage planned on, an hour or so earlier than was expected, do not try to force the men to make the next town or village. If you do, you may find



Seven Pierce-Arrows and one White 2- and 5-ton capacity, owned and operated by the Miller Storage Company, Philadelphia, Pa. They represent an investment close to \$50,000.



This Mack Brothers' truck is said to have been the first motor truck ever used in the moving business. It was first put in service early in 1905

only one garage when you get there, and that one with a small entrance that is not large enough to allow your truck to enter. The only thing you can do after this is to leave the truck in the road, or try and make the next town. This has occurred more than once, and the following may be cited as a recent case of this kind.

One Case of Poor Judgment

A moving man left New York City late in the afternoon to deliver furniture to Philadelphia, Pa., a distance of 90 miles by road. After being on the road three or four hours, it began to get dark, but instead of stopping at some garage he kept going until he reached Philadelphia. By this time it was past midnight, and, of course, he could not deliver his goods. He tried to find a garage with an entrance large enough to admit his truck, but this was impossible, especially at the late hour. He could only keep the truck standing in one place a few minutes, because of the law. Thus the truck had to be kept in motion practically the entire night. When the time came to deliver the goods, the men were in no condition to do so. This is only one instance of poor judgment.

Look Over the Truck at Night

On long-distance moving the motor truck can make ten miles an hour by running easily, or 100 miles a day without doing any damage to the engine. One of the greatest troubles in this work is that the truck does not have proper attention on the long hauls. Sometimes the truck is run 300 or 400 miles over a rough country, and never looked at until something has work loose, or been lost. It is always a good policy to spend one-

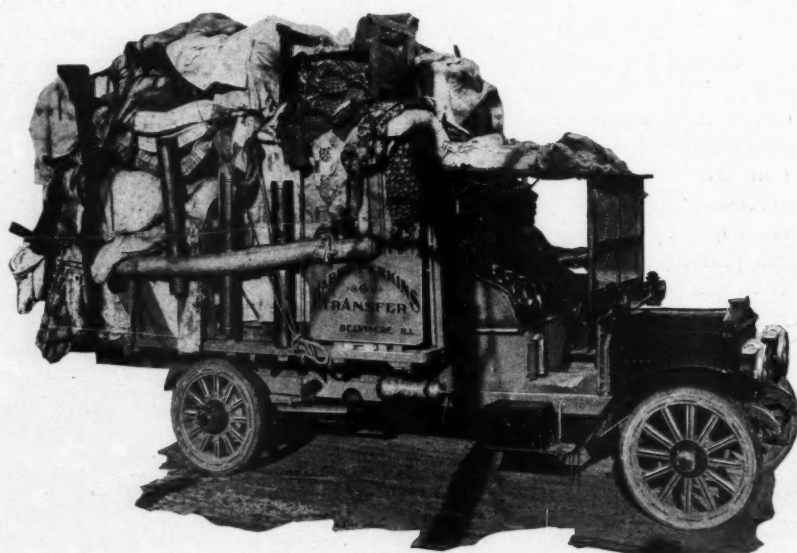
half hour or so on the engine every night. This will eliminate the costly troubles liable to develop while on the road.

By spending a little time going over the engine, we do not mean that it should be taken apart. When giving such instructions to your driver be sure to make yourself thoroughly understood. You will find that the average driver thinks he knows all there is to know about a car and is always willing to take it apart. Drivers have often taken the machine apart looking for some little trouble, causing a great loss of time and expense. If you allow him to do so, be sure that he is a mechanic.

Need for Clearing House

It is also a good thing to get in touch with some reliable company in the city or town that you are going to, as in this way you may be able to arrange for a return load. This would be making the game pay at both ends, and cut out the present enormous waste.

It would be still better if there was an exchange or clearing house where all moving men, both in and out of any city, could report shipments they are about to make in other cities. For instance, a New York concern taking a load to Washington, D. C., on such and such a day might secure a return load to New York if there was any way of finding out whether there were any such loads ready. On the other hand, the Washington concern when coming to New York would notify the agency in the same way as the New York concern, and would learn if there were any return loads to Washington. This would be a great assistance to all moving men taking long-distance orders, because they would know just what to figure on when taking such trips, whereas at present, when they correspond with other concerns they seldom receive an answer, and do not know whether they can secure a load on their return trip or not.



This is surely a well-packed load on the Federal motor truck shown. The owner has driven it 3,700 miles in a little over 5 months



Letters From Readers

THE purpose of this "Letters from Readers" Department of TRANSFER & STORAGE is to serve as an open forum in which questions of interest and importance in the transfer and storage business may be discussed by the readers of the paper. It is intended also to serve as a source of information to those who desire to know about any phase of the transfer and storage business. If there is any particular problem facing you, write to TRANSFER & STORAGE for the information you desire, and if this information is not in the office, the editors will do their utmost to obtain it for you.

SUCH communications as are of general interest will be published in this department unless the correspondent specifically requests that the letter be withheld. Published articles may be signed by the author's real name or by an assumed name, but in this event, the real name and address of the writer must be known to the editor of TRANSFER & STORAGE. The editors reserve the right to reject or withhold any communication. Argumentation and discussion on any point in the transfer and storage business are good for the industry, but TRANSFER & STORAGE cannot publish articles of a personal nature or unsigned letters.

Carrier's Liability for Goods Lost Based on Statutes

Editor, TRANSFER & STORAGE:—Please advise us whether a shipper whose goods are lost is entitled to a replacement value.

Reply.—When goods have been lost by a carrier the owner is entitled to recover "on the basis of the value of the property at the place and time of shipment." This value is to be "the bona fide invoice price, if any, to the consignee, including the freight charges, if prepaid." This value may or may not be the same as a replacement value. It may be more or less than that. It is, in any case, the value of the goods at the time of their loss, as determined by the statute.

A Carrier Must Protect the Goods

New York, Oct. 15, 1917.—A sold to B some merchandise on the basis c. and f. A delivered this merchandise at a steamship dock, and, while the merchandise was on the dock, it became wet on account of a storm. When the steamship company loaded this merchandise they marked the bill of lading, "Received during rain." The goods had lain on the dock two days before they were put in the steamer. In case of damage on account of rain, who would stand this loss?

F. A.

Reply.—A steamship company is liable for goods delivered to and accepted by it. If the company is willing to accept goods during a rainstorm, and does accept them, it is bound to see that they suffer no

further damage thereafter. The carrier, in short, is not liable for any damage to the goods previous to its acceptance of them. From that time, however, it is bound to protect the goods against all damage from the elements.

Meaning of "Wilful Negligence"

Owego, N. Y., Oct. 14, 1917.—We understand that the bills of lading now used by practically all carriers provide that the amount of any loss or damage for which a carrier is liable shall be computed on the basis of the value of the property at the place and time of shipment rather than the invoiced price, if it happens that that price is higher than the market price on the day of shipment; but you recently stated in your paper that in case of wilful negligence carriers were liable for the invoiced price of the goods. Just what do the terms "wilful negligence" mean? It is not to be supposed that carriers intentionally allow goods to be damaged. Are not they, however, liable for the invoiced price of goods damaged in the case of an unreasonable delay—for instance, allowing a car to lie at one point several weeks with the contents in a water-soaked condition due to defective car?

C.

Reply.—Wilful negligence is such as arises out of a gross neglect of the proper means for protecting property. A person who can protect property by the use of ordinary and reasonable care, and who fails to use such care, is guilty of wilful negligence. To allow a car to lie at one point for several weeks under the conditions described by our correspondent, if the matter might have been attended to, under the circumstances of the case by

reasonable diligence, is to be guilty of wilful negligence. It is negligence which might have been prevented if the will to prevent it had been present.

Negligence and the Bill of Lading

Late in 1916 we placed an order for some galvanized sheet iron which was shipped to us in January, 1917. A considerable portion of the shipment failed to arrive and has never since been delivered by the railroad. After waiting three months, we were obliged to buy another lot to take the place of that which was lost, and in the meantime the price advanced about 30 per cent. We billed the railroad with the cost of replacement. They refuse to acknowledge our claim, except on the basis of the original purchase. Do the laws uphold them in this decision? They base their stand on this clause in the bill of lading: "The amount of any loss or damage for which the carrier is liable shall be computed on the basis of the value of property (being the bona-fide invoice price, if any, to the consignee, including the freight charges, if prepaid) at the place and time of shipment under this bill of lading."—A. L.

Reply.—The consignee and the carrier are equally bound by the bill of lading. The contract between them is that contained in this document. The clause quoted by our correspondent forms part of the usual bill of lading. It has been accepted by the consignee and he is bound by it. If the consignee, however, can show any wilful negligence on the carrier's part he may recover his full loss, notwithstanding the terms of the bill. A bill of lading protects the carrier against accidental loss, but not against wilful negligence.

The Meaning of F. O. B. and C. I. F.

Editor, TRANSFER & STORAGE:—Please advise me what f. o. b. means. A purchased a shipment of merchandise from a European country f. o. b. Boston. Does this include insurance, duty and clearance charges? Also inform me what the exact definition of c. i. f. Boston is.—F. C.

Reply.—This seller undertook to deliver the goods free on board at this port. This is the delivery he must make in order to entitle himself to the purchase price of the goods. The seller may insure the goods or not, as he will. In any case he is bound to deliver them in Boston or pay damages for his failure to do so. It is for him to decide whether or not he will shift part of the possible damages to an insurer. He is liable to the buyer in any case, and the question of insurance is one for him to decide. When a sale is made for delivery c. i. f. Boston, the seller agrees that, for the amount named in the contract, he will supply the goods, insure them and pay freight upon them to this port. He does not undertake to deliver them here, but only to ship them. If he does ship the goods the buyer is liable for the price.

If the goods do not arrive, due and proper shipment having been made, the buyer is to look to the insurer.

The Storage of Railroads' Unclaimed Goods

Editor, TRANSFER & STORAGE:—Kindly give us such information as you can in regards to the charges and conditions that are customary in storing refused and also unclaimed goods for railway companies.—NORTHERN TRANSFER & STORAGE Co., Havre, Mont.

Reply.—The conditions of this class of storage differ in most cities. The labor rates, the taxes and the laws are different. Before taking this kind of storage you should have a written agreement with the railroad companies, to this effect. That after having goods for a specified length of time, such as required by the law in your state, and after you have made the required attempts to get in touch with the consignee without any success, you will advertise that the goods will be sold at public auction on such a date. After this you first deduct whatever is due you, then pay the railroads whatever is coming to them, and turn the balance over to the city.

The rates charged by one of the largest concerns in New York City that handles goods for every railroad entering that city, is a minimum charge of 50c. for storage of small packages. When larger packages are stored the rate is increased in proportion. For carload lots the charge is from \$20 to \$25 per month plus one-half the storage rate for labor charges. The cartage rates are 25c. per 100 lbs., in load lots, and 50c. per package for small lots.

Removal Registration Ordinance

Editor, TRANSFER & STORAGE:—We are writing to say that there is a state law in Rhode Island which requires us to give the names, addresses to and from which we move goods and dates of moving. We would like to know whether or not you have such a law in New York State. In Rhode Island these notices are supposed to be turned in within 10 days from the date of moving, and if not reported there is a fine of \$50. Also would ask you to tell us if the companies in your city or state have, or are required to have, a license for moving all household goods and pianos, and if so what the amount of the fee is.—CADY MOVING & STORAGE Co., Providence, R. I.

Reply.—At the present time New York City has no removal registration ordinance. However, the installment houses, retail grocers and real estate dealers have made another attempt to have such an ordinance passed and the matter is now pending.

The New York Furniture Warehousemen's Association and the Van Owners Association of Manhattan and Brooklyn are bending every effort to defeat this unjust class legislation.

The law of New York City requires all vehicles to have a license. The fee for the horse-drawn vehicle is \$2 per year and the motor truck, \$5. The license fee for hoisting pianos is \$25 per year. This work also requires a bond for \$3,000.

Functions of the Modern Warehouse

Warehouseman Today to Meet Public Demands Should Have Fireproof Building and Reputation for Efficiency

By S. G. Ebert

IN a previous article we endeavored to trace for our readers the history of the Warehouse industry from its earliest beginnings down to our own times, to show the extreme antiquity of the Warehouse as an institution, the tremendous influence it has had upon the growth of civilization, and to show further how continuous and healthy the growth of the Warehouse business itself has been.

Now we are going to try and go a step further and analyse briefly the position which the industry occupies today, discuss a few of the salient features of the modern warehouse, and last, but not least consider briefly the all important feature of the present time. The relation of the warehouse industry to the service of the nation in the critical trials which the country, in common with the rest of the world, is passing through. For, after all, the warehouse industry, as every other branch of business or social activity in the country, must contribute its share to the all important work we have in hand—the winning of the war—otherwise it would not be entitled to live.

And as these words are being written there comes to us in the news reports fresh evidence of the fact the warehouse industry is taking its proud place among the leaders of the servers of the nation, in the announcement of the appointment of Irving T. Bush, founder and President of the Bush Terminal Company as head of the commission in charge of the regulation of the port of New York.

But we are getting ahead of ourselves. Let us return for the moment to the consideration of the Warehouse as an existing institution apart from the abnormal conditions which have been brought about by the great war.

The Warehouse Man a Custodian for Valuables

As we pointed out in our previous article, the warehouse is essentially a fiduciary institution, a custodian of values in the same sense as a bank is. This is something which the public is coming more and more to realize, with the result that the demands on the warehousemen as to the security of the goods stored, efficiency in the handling of them, and integrity on the part of the warehouseman himself, are becoming greater year by year.

When a man puts his goods into storage now-a-days he wants to know that they are going to be safe in every respect, and he does not want to have to pay an exorbitant rate to an insurance company in order to guarantee himself this safety. He expects the warehouseman to take care of reducing all risk of loss to him,

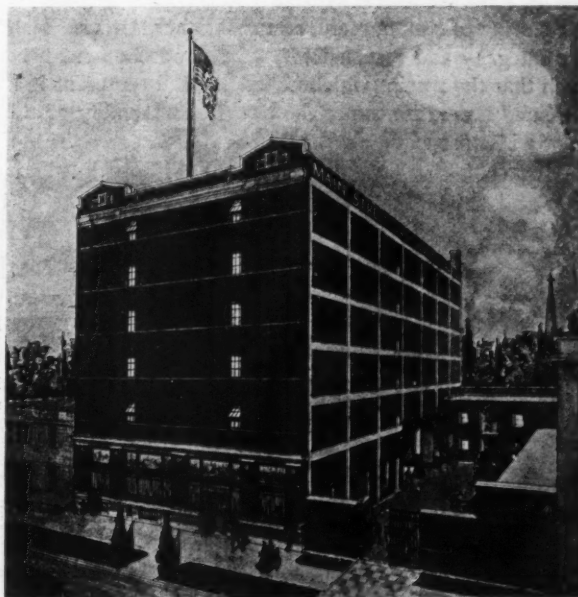
whether it be by fire, dampness, theft, or other causes, to the absolute minimum.

Hence we have seen the passing of the day when any old place was considered good enough to store goods in, as was the case not so very many years ago, and have seen the growth of some of the imposing and handsome buildings, erected not only as warehouses, but designed especially for the most economical, most efficient, and safest handling and storing of the particular commodity which it is expected to store in them, which are the homes of the modern warehouse industry.

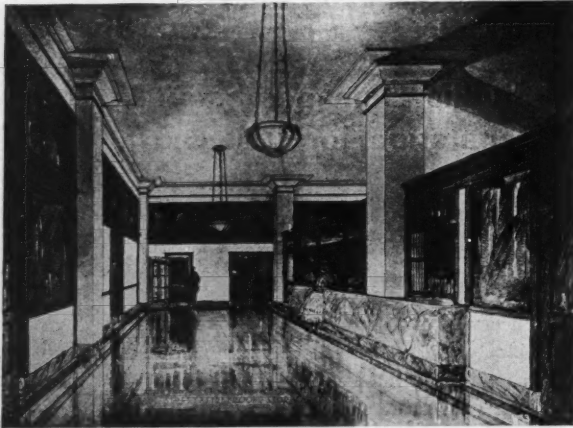
The Great Demand for Fireproof Warehouses

The demand for fireproof buildings is an ever growing one, and the time is even now here when the warehouseman who owns a non-fireproof warehouse is at a distinct disadvantage in competition with one who has a building of a more modern and fireproof type. It would seem as though the time is not many years distant when the non-fireproof warehouse will be a thing of the past entirely, when the storing of goods in a building where they are subject to loss or damage by fire will be as obsolete as the wooden Indian which used to stand in front of every cigar store.

But it is not alone safety due to the modern type of



A good example of the modern household goods warehouse being erected in the residential sections of cities of 250,000 to 500,000 population

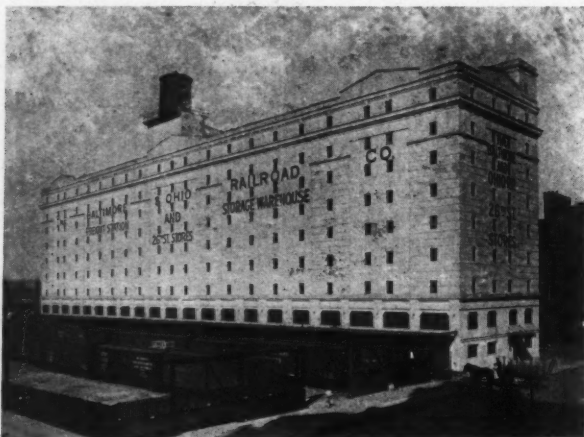


The refined appearance of the present day household goods warehouse instills a sense of confidence

building which the storer of goods demands. He demands also, and in equal degree, safety due to the integrity and responsibility of the warehouseman, and he demands service. He wants to know not only that his goods are safe from damage or loss by fire or other accidental causes. But that they will be taken proper care of, that they will be stored in such a manner and in such a place that they will be returned to him in the same condition as they were when received. He wants them to be accessible so that he can get them out when he wants them without undue trouble or delay, and with the minimum of handling charges.

The Demand for Efficiency

In other words he demands of the warehouseman efficiency in the running of his business. Moreover, there is a growing demand, particularly in certain lines, notably the storing of cotton, grain, and such other staples. That the integrity and responsibility of the warehouseman be such that the receipt which he issues shall represent in a true and accurate manner the amount and quality of the goods in storage.

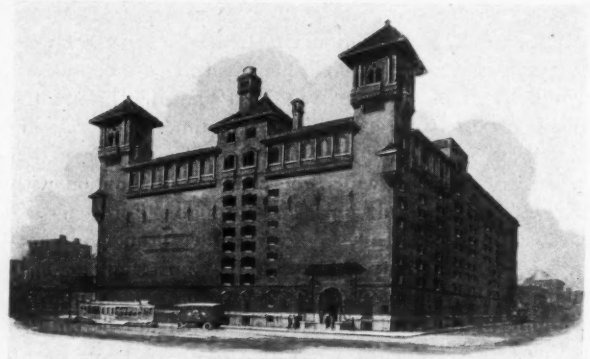


Merchandise warehouses of this type are being constructed to-day in the big distributing centers

So that the receipt will have a cash or collateral value equal or comparable to the actual value of the goods themselves.

We have not in this country progressed as far in this respect as the European countries have. But, there is a growing appreciation of the value of the warehouse receipt as a negotiable instrument. It is our belief that we are working towards the time when such receipts will be recognized as second to no other form of collateral.

Perhaps one of the best ways in which we can bring home to ourselves in a simple and concrete way some of the salient features of the modern warehouse; is to place ourselves for a moment in the position of a man who is contemplating the erection of a new warehouse building. Who wishes to weigh all considerations so that in conducting his business therein he will achieve the



An example of a household goods warehouse that can profitably operate only in our largest cities

fullest measure of success. Of course, the first thing he will do is to carefully analyze his territory and assure himself that the business is there for him to get.

Selecting Proper Location for Warehouse

Having convinced himself of that he will then turn himself to the consideration of the selection of a location, and in this much depends upon the character and class of business he expects to go after. Leaving aside all considerations of a purely local nature. If he expects to handle largely general merchandise or cold storage he must seek a location which can be either directly served by the railroad or steamship facilities of his town, or by both, or is so directly accessible to them as to enable him to reduce his carting and handling expenses to the lowest possible figure.

If, on the other hand, he contemplates confining himself to the storage of furniture and household goods. The question of railroad or steamship facilities becomes entirely negligible, and he must choose his location with reference to accessibility to the residential section of his city, convenience to his prospective customers, and the advertising value of his building.

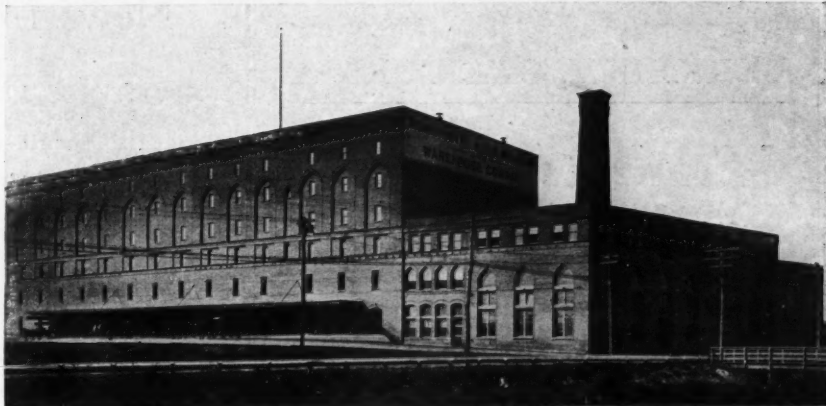
Having decided upon his location his next consideration is the character and design of his building. Here again he must be governed by the kind of business he

expects to go after. That he will want it absolutely fireproof goes without saying. But he must have a fairly clear idea of just what goods he is going to store, for, of course, the methods of storing and handling different commodities differ widely. If he expects to handle largely heavy materials his buildings must be designed and constructed accordingly, with heavy floors and low ceilings. If, on the other hand he will only store light goods he can save on the cost of his building by putting in lighter floors, and he may also find it advisable to increase his ceiling heights.

This, of course, depends upon the pressure per square inch of the floor load.

Building Should Have Most Storage Space

He must decide on the amount and character of the labor-saving devices which he is going to install. And whatever the type or character of his building he must see that it is designed so that the maximum possible amount of the space in it is available for storage. For the production of revenue, and at the same time so that all goods are accessible and can be put in, taken out, or



This type of warehouse is usually equipped to handle any kind of storage, although specializing on cold storage and dry merchandise storage

form of modern business activity, and the failure to handle his advertising judiciously will inevitably result in loss to him either in the failure to get the business which he should, or in the wasting of money by the use of improper mediums.

Goods Should Be Checked

Then he must introduce modern methods of listing and checking the goods which come in so as to guard against misplacements or loss, and so that he knows just where they are in his building. So that he or his customer can inspect them or get them out at any time, and so that he can keep track of their condition and be sure that they are not suffering damage from any cause while they are in his warehouse.

He must introduce modern methods of accounting so that he cannot only keep his bills and collections up to date, but also knows accurately what it is costing him to keep or to handle goods at any time. He should be constantly on the lookout for ways and means of improving

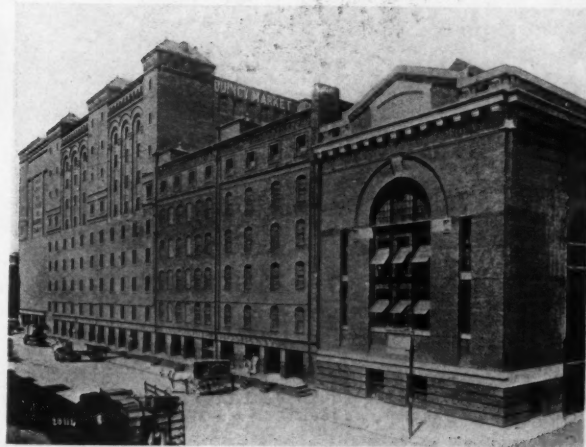
(Continued on page 32)



A warehouse of moderate capacity that represents the newer type of building being used for merchandise storing and distributing in our smaller cities

inspected with the least amount of labor and in the quickest time.

Having solved the problem of his location and his building he next turns his attention to the most efficient and economical methods of getting business, and of handling it after he has gotten it. The successful modern warehouseman must know a good deal about the relative value and merits of the different forms of advertising. While advertising is perhaps not so vital to him as it is to some other forms of business, still it occupies an important place in his business, as it does in every other



The cold-storage warehouse involves a greater outlay of capital than any other phase of the storage business. This illustration shows the power house and a substantial butter and egg storage plant

BERKELEY, CALIFORNIA

**Students Express
and Transfer Co.**

Established 1890

2132 Shattuck Avenue

J. R. DRIVER, President

D. L. DRIVER, Secretary

M. B. DRIVER, Manager

Transfer; Motor Service;
Storage of Household
Goods, Merchandise, IronFour Warehouses
45,000 Square FeetMembers Illinois Furniture Warehousemen's Association
Pacific Coast Furniture Warehousemen's Association**News from Everywhere
Briefly Told**

"Cut-rate" baggagemen of San Francisco, Cal., have decided to abolish the rate of 35 cents for hauling trunks and baggage short distances, and charge the "regular" rate of 50 cents for all trunks and suit cases; except that two suit cases will be carried for a single charge. The decision was reached at a meeting of the San Francisco Baggage, Transfer Men and Storage Associations.

Samuel Rashba, Fair Haven, Conn., has purchased the equipment of Harry I. Fowler & Son, and will establish a general trucking business.

Norfolk Transfer & Storage Co., Norfolk, Neb., has leased the new Koenigstein Building on South Seventh Street. The building is of brick construction with a full basement and two stories, available for three full storage floors. It is equipped with an automatic electric elevator and in its combined features with the old building of the Norfolk Transfer and Storage, gives the organization a railroad unloading platform of over 250 feet, an increased storage capacity from 22,000 to 45,000 square feet of floor space, frost-proof rooms for perishables, private compartments for household goods, steam heated rooms for pianos, a large space for automobile storage and other facilities, indicating the necessity of modern facilities for storage caused by the rapid growth of the city.

W. H. Blakeman, owner of the transfer and storage company, started in this business in Norfolk twelve years ago. His persistent belief in the future of Norfolk resulted in the expansion of the business from a one-horse dray to the automobile stage. The horse dray is now replaced by three automobile trucks, besides vans, boiler wagons, drays, etc. The business was recently licensed and bonded by the State.

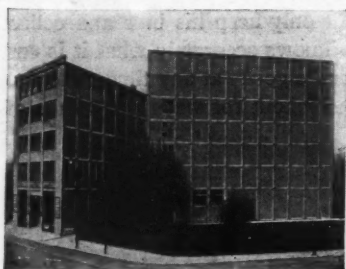
Consumers' Warehouse & Storage Co., Salt Lake, Utah, recently incorporated for \$50,000, has taken over the Hess Produce Co. It is building an additional one-story and basement fireproof warehouse, located at West South Street. This will give the new company approximately 70,000 cubic feet of storage space. J. A. Hess, manager of the old company, will have charge of the new company.

Downey Storage Co. building at Huguenot Street, New Rochelle, N. Y., was completely destroyed by fire on November 10.

Charles F. McGuire, vice-president and manager of the Campbell Stores, Hoboken, N. J., died on October 25. Mr. McGuire was connected with that concern for 28 years and was well and favorably known in the industry.

C. M. Rouse, Gallup, N. M., has purchased the business and equipment of the Matlock Transfer Co., and will continue to do business under the name of the Gallup Transfer Co.

BOSTON, MASS.



Dorchester Fireproof Storage Warehouse
Thomas G. Buckley, Proprietor and Manager

A modern, fireproof warehouse of reinforced concrete construction; built expressly for the storage of household goods and pianos. Not only is the building proper absolutely fireproof, but each room is partitioned off by terra cotta tile and is provided with a fireproof door of the most approved style, making

"Every Room a Fireproof Vault."

T. G. BUCKLEY CO. Expert Movers of Household Goods and Pianos

Established 1890

Office and Warehouse:

690-692 DUDLEY STREET, BOSTON, MASS.

MOTOR TRUCK SERVICE

Operating a Fleet of Seven Trucks

Consignments will receive our prompt and painstaking attention. Consign L. C. L. to Boston, Mass.; C. L. to Massachusetts Ave. Yards N. Y., N. H. & H. R. R., Boston, Mass.
Because we are the only concern in Boston operating both a strictly fireproof Warehouse and a Transfer business, we are in a position to give your customers the most efficient service.

Arthur Dixon, president of the Dixon Transfer Co., Chicago, Ill., died at his home on October 26, in his eightieth year. Mr. Dixon was one of the leading men of Chicago. His religious life and charitable works were of as intense a nature as his business career. He served in the City Council for twenty-four years, during which time he was for four years President of the Council, and several times acting as Mayor of the city. He was later elected to the Legislature, serving two terms. Mr. Dixon founded the company bearing his name.

Manufacturing Trucking Co. has been incorporated for \$50,000 to do general trucking at Pittsfield, Mass. Its officers are: H. R. Russell, Pres., and A. Peck, Secretary and Treas.

J. Kearney's Warehouse, Philadelphia, Pa., was damaged by fire on October 15th to the extent of several thousand dollars; origin unknown.

W. S. Mosbarger, Fillmore, Cal., has purchased the business and equipment of the Stewart Transfer Service, from Gus Stewart. Mr. Mosbarger will endeavor to uphold the company's standards adopted by the former owner.

Federal Warehouse Co. has been incorporated for \$25,000 to conduct a general warehouse and trucking business at Auburn, N. Y.

Riverside Storage Co., Kansas City, Mo., recently incorporated with a capital of \$300,000, will build three large warehouses between Grand Avenue and Main Street, facing the river front. The property purchased is 170,000 square feet, and cost \$300,000. It is estimated that this project involves \$2,000,000, and will take 1½ years to complete.

Charleston Terminal Co., Charleston, S. C., has been granted permission by Secretary of State, W. Banks Dove to increase its capital stock from \$15,000 to \$105,000.

George F. Farwell, Boston, Mass., died suddenly at his office on October 19. Mr. Farwell was in the teaming business for more than 50 years. He was seventy-three years old and is survived by three sons and a daughter.

J. F. Kulp, president of the J. F. Kulp & Son Co., Buffalo, N. Y., died at his home on October 23. Mr. Kulp was one of the pioneers in the transfer and storage business, and a man that will be greatly missed in this business throughout the country, not only because of his fairness in all dealings, but his willingness to help others. The funeral services were held on October 27 and were attended by the members of the Buffalo Trucking Assn., who acted as honorary bearers.

W. T. Callahan, Birmingham, Ala., has sold his livery and dray business and equipment to W. F. Barr and J. T. Alexander. The business will be conducted at the old stand by the new firm.

BOSTON, MASS.

The Suffolk Storage Warehouse Company

98-100 Northampton Street

L. G. Myers, Manager

Assures fellow warehousemen the best service in handling consignments either for storage or delivery to house or apartment, unpacking and setting up. Only men with long experience are employed.

4 Buildings with 1000 Rooms
Low Insurance Rates
Convenient to All Freight Terminals

Members of
American Warehousemen's Association
Illinois Warehousemen's Association
New York Furniture Warehousemen's Association
Pacific Coast Warehousemen's Association
Traffic Club of New England

Cable Address, *Jenkinlis*
Western Union

Long Distance Phones
3100-3101-3102 Bedford

Brooklyn

New York



ABSOLUTELY FIREPROOF

Long Island Storage Warehouses

Nostrand and Gates Avenues

Branch Warehouses

881-891 Park Avenue

781-789 Kent Avenue

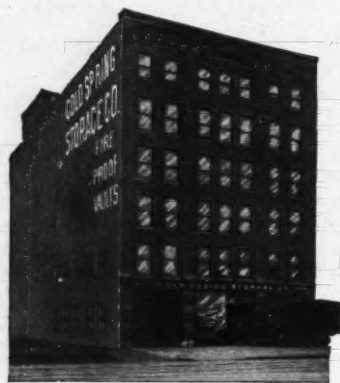
Brooklyn, New York City

To save delay in consignments for delivery to any part of New York City or Brooklyn, mark goods in our care to "Eastern District Terminal, Brooklyn." This is the center of Greater New York—no delay due to congestion.

Try shipping this way. We know

WE WILL

Look after your interest, also that of your customers at—

BUFFALO, N. Y.

OUR large, specially-built, six-story household goods warehouse is one of the finest between New York and Chicago. (Capacity 1000 van loads.) With our corps of expert workmen and unequalled facilities, we can render prompt and efficient service to your Buffalo patrons. *Furniture Stored, Packed or Shipped to Any Part of the World*

Convenient to the railroad switches Low Insurance Rates
Motor Trucks for Prompt Delivery Fireproof Vaults

COLD SPRING STORAGE COMPANY

1432-1442 Main Street

J. W. POWELL, President and General Manager
Members of Buffalo Chamber of Commerce

CALGARY, ALBERTA

THE
Pacific Cartage Co.
LTD.

C. P. R. Freight Office

A. M. NANTON, Pres. E. D. ADAMS, Sec. & Treas.
C. M. STAINES, Manager

Agents for Canadian Pacific Railway
Cartage and distributing of carloads
a specialty. General merchandise and
furniture stored at reasonable prices.

TWO WAREHOUSES
12,500 square feet

City Trucking Co., Fort Wayne, Ind., suffered a loss of its barns located at North Clinton Street and the St. Mary's River by fire on October 26. The loss was estimated to be \$10,000. Origin unknown.

Lawrence Warehouse Co., Oakland, Cal., has erected a new 3-story fireproof warehouse located at Fifth and Kirkham Streets. The building has 37,000 feet of floor space. Direct spur tracks have been run into the building, giving the advantage of quick handling of goods and assuring dry conditions of goods when moved in wet weather. There is also a special feature in the handling of automobiles direct from the car to the floor of the warehouse. This new building gives the Lawrence Co. a chain of fourteen warehouses in the central and northern territory of California.

Carl Thede, Peoria, Ill., has been given charge of the transfer business at Camp Dodge, Iowa. Thede was recently transferred from the Three Hundred and Thirteenth engineers to the quartermaster corps, and has been placed in charge of a wagon train. He is now acting wagonmaster sergeant and is responsible for 500 mules, 200 escort wagons and nine stables. Thede was associated for several years with his father in the transfer business at Peoria.

Lyon Fireproof Warehouse, Oakland, Cal., has in use a 5-ton Pierce Arrow truck with a loading capacity of 1,200 cubic feet. This is presumed to be the largest truck in the United States engaged in moving work. It is eight feet high and seven feet wide inside, and will hold the contents of an entire 8-room house.

Mercantile Storage & Warehouse Co., Omaha, Neb., has started work on its new fireproof warehouse located at Eleventh and Jones Streets. The building will be six stories and basement and the dimensions will be 132 by 132 feet. It will have 125,000 square feet of floor space, and will be equipped with elevators, sprinkler systems and other up-to-date improvements. There will be a wagon dray loading dock on the Eleventh Street front, and trackage runs on the Jones Street and alley sides. The building and equipment is estimated to cost \$200,000.

Sheen Transfer Co., New Orleans, La., has offered to do all carting and draying of any kind of goods from the headquarters of the Army and Navy League to any section of New Orleans free of charge.

J. Kearney Moving & Storage Co., Philadelphia, Pa., suffered a loss of its warehouse at 1903 Catharine Street by fire on October 15. A large quantity of furniture stored in the building was also destroyed, bringing the damage up several thousand dollars.

M. A. Keyser Fireproof Storage Co., Salt Lake City, Utah, suffered a loss by fire on October 1 to the contents of its piano storeroom. The damage was estimated at \$5,000.

People's Warehouse, East Greenville, Ala., suffered a loss of their warehouse by fire on October 16. Loss estimated at \$4,500, partially covered by insurance.

Central City Storage & Transfer Co., Syracuse, N. Y., is making a specialty of outdoor storage. That company has 25,000 feet of such space at the corner of Plum and Wilkinson Streets, and expects no trouble in being able to fill this space in a short time.

Allison Storage & Transfer Co., New York City, has leased for a term of years the five and six-story buildings located at Nos. 74-78 Cliff Street.

Hogan Transfer & Storage Company's new fireproof storage warehouse, at No. 863-869 Massachusetts Ave., Indianapolis, Ind., has been recently completed and opened for business. The building is five stories and basement and contains 600,000 cubic feet of floor space. The general office lay-out has a spacious lobby, private office, clerk's office, ladies' rest room, piano room and vault for the storage of valuables. A mezzanine floor surrounds the general office, this is used for the storage of pianos. The rug and trunk rooms are located on the first floor. The third and fourth floors are devoted to private storage rooms. Other floors are for open storage.



The new building of the Hogan Storage Co.

The building is equipped with both passenger and freight elevators. It also has a railroad siding and a 150-foot concrete loading platform. The building was constructed by the Warehouse Realty Co. and the Hall-Curry Construction Co. of Indianapolis, Ind., was the general constructor. The building was designed and supervised by S. H. Dunford, architect, 180 N. Dearborn St., Chicago, Ill. H. C. Schroeder is now the president and general manager of the Hogan Transfer & Storage Co.

Burley-Twine Falls Transportation Co., Burley Idaho, has been formed and will run a line of automobiles for baggage, express and delivery between the nearby towns. T. J. Keelen is the manager.

W. A. Randle, San Bernardino, Cal., has started in the transfer and storage business. Randle will have a fleet of 10 and 12 trucks. He will alter the building at Rialto Avenue and E Street to an up-to-date warehouse.

CHICAGO

The Sign That Brings You Business

ARE YOU **LEAVING CHICAGO?**
PACKING AND
SHIPPING HOUSEHOLD GOODS
OUR SPECIALTY
THE CENTRAL CO.

736-740 FIRST NATIONAL BANK BLDG

OVER 2½ MILLION POUNDS
SHIPPED JAN. 1 TO JULY 31, 1917

*Send Us Your Chicago Business
We Will Send You Ours*

MOTOR TRUCKS
Centrally Located
Near All Railroads

FORT DEARBORN FIREPROOF STORAGE CO.

4165-29 Clifton Ave., near Broadway and
Wilson, Chicago.

Fireproof
Storage.
Motor-
Van
Service.



Pool Car
Handling
a
Specialty

The only warehouse located on the Great North Shore with private railroad switch track at its door, serving efficiently *Edgewater, Ravenswood, Sheridan Park, Rogers Park, Evanston* and the *Wilson Ave.* district.

Consignments from all railroads bill to Wilson Ave. Switch C. M. & St. P. Ry:

SERVICE IS THE THING

For You and Your CLEVELAND Customers

**LET US SERVE THEM AS
THEY SHOULD BE SERVED**

Our Equipment—Fireproof and Non-Fireproof Storage. Motors and Horse-Drawn Vans.

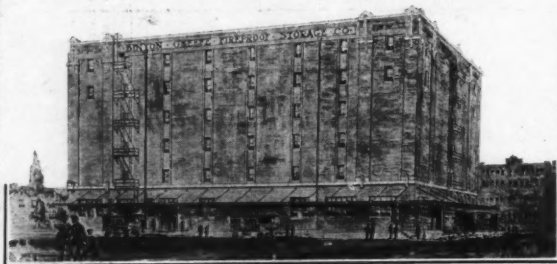
Our Organization is complete and is more than ample for the largest and most difficult proposition.

We Conserve Your Interests

**THE CENTRAL STORAGE
WAREHOUSE CO.**

1843 East 55th Street
5601 Hough Avenue

CLEVELAND, OHIO
SIXTH CITY

FORT WORTH, TEXAS**Binyon-O'Keefe
Fireproof Storage Company**

Est. 1875

Your consignments to Fort Worth will receive intelligent service. We have a siding on the Rock Island Railroad with free switching from all lines. Fireproof warehouse, 90,000 sq. ft., yard storage, factory distributors.

Members of

Illinois Furniture Warehousemen's Association
Southern Furniture Warehousemen's Association
Central Warehousemen's Association

Functions of the Modern Warehouse

(Continued from page 27)

his methods, increasing his efficiency, and cutting down his costs.

These are only a few of the many problems which the successful modern warehouseman has to meet and has to solve. We have not even attempted to go into the question of rates. Of the commission regulation of them, and many kindred questions, as a discussion of such questions as these would be far beyond the scope of this article. There would be little or nothing that we could add to the very able papers which have been read at many of the meetings of the different Warehouse Associations in recent years.

This brief survey of some of the problems which confront our imaginary warehouseman are only intended to be illustrative of the high degree of specialization which the modern Warehouse Industry has reached, and to visualize this fact for us.

Service an Important Phase in Business

Now in conclusion let us turn to a consideration of what is now the most important phase of all—the service which the industry is capable of rendering, and is rendering to the Nation.

In times like these it is all important that enormous quantities of materials shall be accumulated at the points of manufacture, or at some convenient distributing point as the case may be, so that an unending stream of supplies can be kept flowing to our allies and to our own forces in the field, at home or abroad.

The factories must never be allowed to slacken in their production, and since now-a-days the problem of shipping presents many grave and unusual difficulties. The only way that the factories can be kept working at top speed is by the existence of such ample warehouse space that, no matter what their rate of production there will always be facilities for caring for the goods turned out, for accumulating them so that they will be available for shipment as the shipping facilities become available.

Warehousemen Responsibility

In order to make this possible many warehouses have had to be converted from their original use and turned over to the storage of war munitions and supplies for our allies or our own armies. There has been a special burden of responsibility placed upon the shoulders of the warehousemen whose bulidings have been so converted to this use—the responsibility of safeguarding by every conceivably possible means the precious supplies entrusted to their care. There have been, unfortunately, many and disastrous fires and explosions due to enemy causes, and the Federal, State, and City authorities have a difficult problem to face in stamping out the nest of spies and enemy agents with which the country is infested.

Where the individual warehouseman can help, can do his bit just as truly as though he were actually on the firing line. By taking every precaution in his power for

the protection of the precious goods entrusted to him from such malicious attacks. By carefully scrutinizing his employees so as to make sure that no enemy alien creeps in through his negligence, or is in any way placed in a position where he might have access to the stores. In cases where the warehouseman feels that the situation is beyond his powers to cope with successfully, he should make prompt and emphatic demand of the United States Secret Service, the Department of Justice, or other proper authorities, that the proper and necessary protection be furnished for his premises.

The earnest co-operation and help of the warehouseman will be invaluable in helping the Government to meet and solve this difficult problem, and we are sure that they will continue the good work they have already been doing along this line, and that their help will be forthcoming in ever increasing measure.

Keep your stores safe from the enemy by every means in your power, and you will be contributing your bit in a very effective way towards the winning of the war, towards "Making the World Safe for Democracy."

Mr. Ebert, who is a recognized writer on the friction and designs of warehouse building, will prepare a series of articles that will appear in later issues of *TRANSFER & STORAGE*.

United States Stops Exportation of Mares

Apprehensive that the war will deplete the country of equine breeding stock, the United States Government has prohibited further exportation of mares, in consequence of which the British and French are now taking only geldings. In two and one-half years about 1,000,000 horses have been sent across the Atlantic for military purposes. Twenty-five per cent. of these were mares. It is estimated that close to half a million more will be required this year. The United States will let contracts for 30,000 horses and mules on June 1st, but specifies they must be six to ten years old, while the British are taking "short fives." Prices paid on the United States contract will be from \$175 to \$235 a head.—*Horse Review*.

War Transportation

One hundred million dollars it is now believed, will be spent by the government in the purchase of motor trucks and automobiles for use in the present war. Of this 4,210 touring automobiles, at \$1,000, 1,310 runabouts at \$850, 29,750 motor trucks at \$2,800, 1,090 repair and kitchen trucks at \$3,200, 2,180 supply trucks at \$3,200, 220 wrecking trucks at \$1,500, 3,670 motorcycles at \$280, and 20 mobile machine shops at \$2,500 each. For horses there will be bought 529,380 for transportation purposes. The price to be paid for all is not stated but for cavalry horses, 252,950, the price of \$175,000 each is allotted and for light artillery \$250.00 each; 9,280 of the latter class will be purchased.

PLEASE MENTION TRANSFER & STORAGE WHEN WRITING TO ADVERTISERS

INDIANAPOLIS, IND.

We Have the Very Best of Equipment for Handling
Heavy Machinery, Boilers, Engines, Tanks,
Vaults and Safes for Erecting Smoke Stacks



INVESTMENT \$200,000.00

We have just completed one of the most modern fireproof warehouses in the country—centrally located on a privately owned railroad switch accommodating eight cars.

We are equipped to give the very best service in all kinds of moving and packing. All shipments consigned to our care will receive prompt attention and our twenty-five years' experience and reliability insures this service.

HOGAN TRANSFER & STORAGE CO.
Indianapolis, Ind.

Members
N. F. W. A. and I. F. W. A.

Established
1892

KANSAS CITY, MO.

D. A. Morr Transfer & Storage Co.
Fourteenth and Baltimore Avenues



Fireproof Household Goods
Warehouse
2619-21 Grand Avenue

We have good buildings and good equipment.

Over twenty years of experience insures good service.

Let us serve you in Kansas City and vicinity.



Fireproof Merchandise Warehouse
Automatic Sprinkler System
2114-20 Central Street

Distributors for jobbers and manufacturers.

Branch House Service.

Pool car distribution.

Side Track Facilities.

MEMBERS { Central Warehousemen's Club.
American Chain of Warehouses.
American Warehousemen's Association.
Illinois Furniture Warehousemen's Association.
New York Furniture Warehousemen's Association.

NEW YORK CITY

MERCHANDISE SHIPMENTS

for upper east side promptly and efficiently handled through our special facilities.

Large merchandise warehouse, 31,500 square feet for storage of shipments in car load lots. We act as distributing agents.

Transfer and trucking service.

Ship via Pennsylvania R. R.; Lehigh Valley; New York Central; Baltimore & Ohio; Erie R. R.; Lackawanna R. R.; New York, New Haven & Hartford; Central R. R. of New Jersey.

H. D. BAHR TRUCKING CO.
280-287 East 137th Street



NEW YORK CITY

We Bid for Your Business on a Basis of Service—"We Know How"

**TWO FIREPROOF BUILDINGS
MOTOR OR HORSE-DRAWN VANS
AN EFFICIENT PACKING FORCE**

Adjacent to all Freight Terminals

ESTABLISHED 1875
"That means something"

Members of New York Furniture Warehousemen's Ass'n.
Illinois Furniture Warehousemen's Ass'n.
Southern Furniture Warehousemen's Ass'n.
Van Owner's Ass'n. of Greater N. Y.
New Jersey Warehouse & Van Owner's Ass'n.

Metropolitan

Fireproof Storage Warehouse Co.
14-39-41 WEST SIXTY-SIXTH STREET
Near Central Park

CHARLES S. MORRIS, Pres. and Treas.
LAWRENCE S. MORRIS, Sec'y and Gen. Manager

New Orleans' Owners Organize Transportation Bureau

The Team Owners' Bureau of Transportation, organized recently for the purpose of putting the commercial transportation facilities of New Orleans on a war footing, look upon the mule and cart, the commercial truck and other means of locomotion by physical power as of an equal, in a local way, to the matter of railroad movement.

Paul Maloney, president, believes that the matter of economizing in transportation affairs is still in its infancy, and he has issued a call to all commercial houses, transportation firms and others to lend a helping hand to the general movement for the handling of the city's commerce.

The following is the gist of the team owners' appeal to the commercial community for support in the working out of the local transportation situation:

"We have problems to solve, and we want you to help us solve them, for several reasons.

"First—Because it concerns the movement of your goods.

"Second—Our government is asking for more efficiency; it needs more railroad equipment to move supplies and troops, as there are not sufficient cars to serve them and you, unless certain wastes are eliminated. Efficiency means saving of waste.

"Third—Your drayman is part of your business; he performs a part in its conduct. The cost of operation of teams and trucks has advanced to such a figure that it is absolutely necessary that delays be reduced to a minimum, else your drayman will have to raise his rates considerably. You do not want this to happen, nor do you want your government embarrassed in the movement of its necessities, and to have to take care of the public also. The latter the business men surely ought to handle themselves, and that is what we want your cooperation for, and you can help yourself, the government and the draymen by doing the following:

"Fourth—Issue your instructions plainly and promptly for incoming and outgoing goods.

"Fifth—Instructions, if possible, should be in drayman's hands before 12 A. M. All shipments after that hour should take following day's dating. Too many shipments are made to the depots in the afternoon, causing a congestion that the railroads are unable to avert. Wagons are sometimes delayed several hours, waiting to be unloaded. Help us save this lost motion by distributing the day's work. The railroads receive most of their forwarding freight after 1 P. M., due in a large extent to shippers issuing instructions late. Make your time for issuing instructions for a day's work from 12 M. to 12 M.

"Sixth—It is the purpose of this association to arrange for a more efficient movement of your freight; to that

end we are directing our efforts. We are not only asking your cooperation for the correction of certain abuses but are asking the cooperation of the city as to the repair of streets, and the railroads as to a more satisfactory method in delivering and receiving. All of which means efficiency in handling your business. Our efforts should claim your support."

Cooperative Delivery a Success

A study of cooperative delivery systems undertaken several months ago by the commercial economy board of the council of national defense has shown that such systems have commonly saved from 40 per cent to 50 per cent in investment and operating costs as compared with the individual systems replaced. The first results of the investigations, covering cooperative systems in forty-seven cities and towns, have just been made public by the board, together with a number of practical suggestions on installing similar systems.

Of the forty-seven cities and towns studied the board found that the cooperative plan had been a success in thirty, a failure in five, and doubtful as to results in twelve, largely because the systems in the twelve places had only recently been installed. These cities and towns are located in twenty different states, and range in population from less than 1,000 to more than 200,000.

In one city of 12,000 population fourteen wagons were found to be doing the work which under the old system required twenty. One grocer in a town of 4,000 had cut his delivery expense from \$1,638 to \$806 a year. A merchant in another town reduced his delivery expense from \$675 to \$224 a month. Eleven stores in another place reported an annual saving of \$5,000. In one city nine wagons replaced seventeen, and in another eleven men, fourteen horses and one car replaced twenty-one men, thirty-two horses and four cars.

The savings generally did not mean less service to the public. In a number of instances the service was actually increased.

Charge Salary Against Business

Always charge a salary for yourself against the business. You must do so, for if you were working for another man you would demand and receive recompense. If you own the building you are in, charge up rent against the business on this account. If you did not occupy the building you would collect rent from the man in it. You must get some interest on your investment. This is your reward for the financial risk taken. If you did not have your money tied up in the business you could lend it out at 6 per cent. Consequently, your business investment should yield you at least the same interest, plus a profit or reward for your service to the community.

PLEASE MENTION TRANSFER & STORAGE WHEN WRITING TO ADVERTISERS

NEW YORK CITY



MORGAN & BROTHER

Storage Warehouses
and Motor Vans

Moving Storage Packing

Our reputation in handling collections on consignments is your guarantee in selecting us as your correspondent in New York City

*Furniture and Works of Art Boxed
and Shipped to all Parts of the World*

230-232-234-236 WEST 47th STREET
TELEPHONE 52 BRYANT Near Broadway

Cable Address: MORGANWARE

Members:

New York Furniture Warehousemen's Association
Illinois Furniture Warehousemen's Association
Van Owner's Association of Greater New York

Specialists in
HANDLING HOUSE-
HOLD GOODS

Five Warehouses

NEW YORK CITY
AND
JERSEY CITY



The Thomas J. Stewart Company

R. M. Pettit
President

Wm. T. Bostwick
Vice-President and Treasurer

E. B. Conant
Secretary

Formerly
COLONIAL STORAGE WAREHOUSES
STORAGE WAREHOUSE
143 West 99th Street, New York
FIREPROOF STORAGE WAREHOUSE
504 West 126th Street, New York

EXECUTIVE OFFICES AND PLANT

Erie and Fifth Streets, Jersey City, N. J.

"Quality Service since 1870"

NEW YORK CITY

"EXPERT SERVICE PAYS"

Moving Packing Shipping

VAULTS for STORING PACKAGES
of SILVER PLATE and VALUABLES

Our central location and modern equipment enable us to offer you an unusually efficient service for your New York consignments.

Members of New York Furniture Warehousemen's Association
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THE WEST END STORAGE WAREHOUSE

Ben Blumenthal, Proprietor Grant Wayne, Manager
Louis J. Crumm, Supt.

202-210 West 89th Street



Consign all C. L. & L. C. L. Shipments for Delivery to Warehouse

B. & O. R. R.—135th St. and Harlem River Station
C. R. R. of N. J.—132d St. and S. Boulevard Station
D. L. & W. R. R.—135th St. and Harlem River Station
Erie R. R.—135th St. and Harlem River Station
Lehigh Valley R. R.—E. 124th Street Station
L. I. R. R.—Harlem and Morrisania Station
N. Y. C. & H. R. R. R.—130th Street Station
N. Y. N. H. & H. R. R. R.—Harlem River Station
Penn. R. R.—E. 125th Street Station
West Shore R. R.—130th Street Station

Cooperation Necessary to Overcome Transportation Deficiencies

(Continued from page 15)

the serious needs already warrant. And new ideas, new devices are constantly appearing that should be applied where they can be successfully used, or modified when possible to suit special conditions.

From Bradford, England, in 1911, a Trackless Trolley System was installed to supplement the regular tram system of the city. It served the rural section adjoining and cost ninety per cent less than the track trolley line. Its electric passenger busses took their power from the overhead trolley by a flexible connection that permitted the bus to wander along the road over which the trolley was suspended. This service has been so successful that it has been extended to several other districts, and its cost of operation is said to be lower than that of gasoline motor busses. In Bradford the regular track trolley cars carry parcels up to 56 lbs. weight. Now a trackless trolley service operates between the tram cars, taking current from the trolley to charge accumulators, which enable the truck to leave the rail to pick up and discharge freight and bulky packages. Terminals are also readily connected by such means.

Railroads of England Operate Motor Trucks

In France, cities are operating motor trucks and serving the entire community. To connect with docks, factories, stores, warehouses, and disconnected transportation systems, they have possibilities America has yet hardly dreamed of. In England, the railroads operate motor trucks for freight something as express companies do here for express. Our railroad men seem prone to view new transportation mechanisms as competitors rather than adopting them boldly to supplement and improve their regular service. Factories in Great Britain are often located in isolated spots to obtain water or other advantages and lack of railroad spur tracks is compensated for by good roads and steam lorry or motor truck service.

If less carload shipments could be eliminated at least partially from our congested city districts and terminals, the railroads would not be demanding so much more money to improve their terminal facilities. And in time their ratio of capital investment to annual income would not be ten to twenty times that of successful manufacturing corporations. By using motor trucks or trackless trolley, and also, when conditions permit, water transportation, to collect small shipments at convenient stations for through hauls, much of the delay, the inefficient use of equipment, and the congestion of expensive inexpandable terminal facilities could be greatly minimized. Some of the keener railroad managers are beginning to see the dawn of the new era, but many are yet living in the past. Express shipments now often take five to eight days between cities only one hundred miles apart. Aeronau-

Omaha, Nebr.

Gordon Fireproof Warehouse & Van Company

Main Office: 219 NORTH 11th STREET

Six warehouses covering over one city block. 200,000 square feet of floor space. Four warehouses equipped with automatic sprinkler systems.

Warehouses served by private tracks on the C. B. & Q. and the C. & N. W. (joint track); and the Illinois Central. All roads absorb switching charges.

Accommodations for brokers, jobbers, automobile manufacturers and dealers.

Household Goods Packed, Stored and Forwarded

MOVING — TRANSFER — FORWARDING

MEMBER (New York Furniture Warehousemen's Association.
Illinois Furniture Warehousemen's Association.
Central Warehousemen's Club.
Pacific Coast Furniture Warehousemen's Association.)

tical schools are fretting over serious delays involved in shipping aeroplanes from place to place. Private interests hampered by railroad incapacity are starting trucking companies to compete with the railroads. Why should the railroad men be so slow to adopt generally a legitimate cure for one of their own great weaknesses?

Standardized Motor Trucks for U. S. Army

For war service, our army officials are developing two standardized motor trucks, a so-called three-ton and a one and one-half ton. For war service where abuse is unavoidable and repair service frequently delayed, a large factor of safety is provided in these trucks, which for ordinary commercial carriage would logically be called five-ton and three-ton trucks respectively. These trucks are being standardized to the smallest item so that a minimum of repair parts will be involved. Our railroad rolling stock, on the other hand, is being overloaded and speeded up, but its increasing repairs will not be facilitated by standardized parts save to a very limited extent.

If our railways were profiting by the wonderful result of standardization of the automobile field, and applying it to their own needs, they would long since have been developing standardized motor vehicles for supplementing railroad service. It is not yet too late to begin this important practice, although there is no time to lose.

Mr. Daniel Willard told the Governors assembled in Washington the first week in May, 1917, that it might be necessary to rebuild the railroads of France, and, perhaps, of Russia, to win the war. Literally billions of dollars' worth of new rolling stock are necessary to meet the present pressing transportation demands of the war. No visible effort has been made to standardize and simplify the design and construction and conserve economy of operation and repair of our locomotives, railroad trucks and cars, whether for service in this country or abroad. The very fundamentals which have permitted the greatest industrial achievement of mankind, i. e., the present automobile industry of America, have not carried their lesson to the unseeing railroad men.

Make Adequate Use of Dock Property

The railroads own, perhaps, the majority of the valuable docks and dock sites all over this country, on harbor, bay, river, canal, and lake. This is a relic of anti-water transportation policies which are inbred in all our railroad men from top to bottom.

In the effort to relieve rail congestion and patriotically follow the plea of the War Department to use water transportation wherever possible, the Keystone Steel & Wire Company endeavored recently to ship pig-iron by part water route from Alabama to Peoria, Illinois. A short rail haul was necessary, about thirty-five cars being needed. The Southern Railroad had the cars, but refused them for that purpose. A trip to Washington to get the aid of the War Department and Mr. Daniel Willard was necessary, but with their assistance the cars were obtained and the shipment started. Although special tugs and barges better adapted to conditions encoun-

OMAHA, NEBR.

THE
"CITY OF OPPORTUNITY"

Represented by the

Pacific Storage & Warehouse Co.

1007-9-11 JONES STREET

We have studied the problems of the national distributor of manufactured articles and merchandise and have both the experience and facilities to care for business of this kind in a way that will satisfy the most critical.

Write us about the goods you have to be distributed in this territory and we shall be glad to quote prices for delivery, storage or re-shipping.

**MOTOR TRUCK SERVICE—75,000
SQUARE FEET OF STORAGE SPACE**

Members of the Central Warehousemen's Club

ATLAS

STORAGE WAREHOUSE

Office and Warehouse:
Market and Thirty-seventh
Streets,
Philadelphia, Pa.

Member Pennsylvania,
New York, Illinois,
and Southern Furniture
Warehousemen's Associations

Service is the measure of the difference between good work and poor.

Service of the right sort in the storage, moving, packing and shipping of household goods and office furnishings exclusively, constitutes our business.

As it relates to shipments consigned to us, we interpret service to require safeguarding the interests of the shipping warehouse, prompt remittance of collections, fair charges and treatment to customers, and to all—courtesy.

We solicit your Philadelphia shipments.

For West Philadelphia and general city delivery consign C. L. and E. C. L. shipments—P. R. R., 30th and Market Sta. Station; E. & O. R. R., 24th and Race Sta. Station; P. & R. Rwy., 23rd and Arch Sta. Station.

PHILADELPHIA, PA.

PHILADELPHIA, PA.



Our large fleet of motor trucks enables us to render quick and efficient service to your patrons.

We are accessible to all depots and suburbs of our city. Our warehouses are within two blocks of North Philadelphia Station of the Pennsylvania Railroad and the 12th and York Streets Station of the Philadelphia & Reading or the Baltimore & Ohio.

Collections through our office will assure prompt returns.

Fireproof and Non-Fireproof Warehouses

Miller North Broad Storage Co.

2709-2721 North Broad Street

PHILADELPHIA, PA.

WHO looks after YOUR interests,
also those of your CUSTOMER
in PHILADELPHIA?

Damage is frequently done in unpacking, by careless, incompetent workmen, and the Shipper is blamed.

Good packing needs careful unpacking to insure a Satisfactory Removal.

"LET WIGHTMAN DO IT"

He's been doing it for over twenty-five years.

SHIP IN OUR CARE AS FOLLOWS:

30th and Market St. Sta., Penna. R. R. Co.

23d and Arch St. Sta., Phila. & Reading Ry.

24th and Race St. Sta., Balt. & Ohio R. R.

PENN STORAGE & VAN CO.

2136 Market Street

tered in navigating the Tennessee, Ohio, Mississippi and Illinois rivers were needed, the results of the shipment were so satisfactory that another trip was made and water transportation became established for that company.

Water Transportation Cheaper

Water transportation between cities on Long Island Sound and cities on neighboring navigable rivers and bays is cheaper and quicker than rail transportation, and this would be also true of many inland points with proper rail and water connections. To utilize this advantage, however, fair apportionment of charges between the rail and water portions of the haul are necessary. Honest development of the connecting facilities and a desire on the part of railroad men and all others concerned to favor the best service for any given commodity is also essential; but this is not so easily achieved.

Our railroad leaders have for several years past been in a very difficult and trying position. With excessive competition among themselves, with the tremendous pressure exerted by various cities and communities for special favors and for advantageous freight and passenger rates and service, with the unrelenting demand by shippers for preferences and discriminations, with all the complications of the political machine, and the added selfish interests of Wall Street and other financial powers, with the public gradually taking part in the struggle, the operating chiefs have indeed been ground between the upper and nether mill stones. Courageously they have endeavored to increase the efficiency of their systems while expenses increased, labor became more difficult to handle, and demands from every direction became more insistent while their incomes were increasingly limited by law, regulation, and taxation.

Difficulties of the Railroad Managers

It is not surprising under all these difficulties that sometimes fundamentals have been overlooked, and the struggle has at times narrowed down to a fight for self-preservation. Under stress of war, however, the nation's interest predominates to such a degree that the local individual and any other interest short of the nation's must be subordinated in the least possible time. This, perhaps, can only be accomplished thoroughly by a new vision on the part of each community as to what it has a right to expect in the way of broad transportation service and what help it is entitled to demand from the government in achieving that service. Nothing short of the combined local and national effort can prevent our present transportation facilities from proving utterly inadequate to meet the needs for carrying this war to a speedy decision. The toll, therefore, which this nation must pay in blood of its children will be measured by the general interest and initiative in the transportation field.

Freight-saving Wrinkles

"Think ahead and order early" is the slogan of a large wholesale grocery house, which endeavors to save freight facilities by more systematic arrangement of orders from its customers.

New Orleans draymen are cooperating with railroads, steamships, and merchants to speed up freight and shipments. A central bureau has been established to handle such details as the surrendering of bills of lading, releasing warehouse receipts, guaranteeing or paying storage charges, putting shipments in good order, and standardizing shipping arrangements. One of the objects of this bureau is to bring about the adoption of a uniform delivery and receiving rule.

A New Orleans traffic manager says that the man who must now be reached in the freight-saving campaign is the small miscellaneous shipper. "But I doubt," he adds, "whether full cooperation in the matter of quick loading, prompt unloading, and heavy loading of cars can be obtained by simply asking him to do it. I doubt the wisdom of asking him 'to do something for the railroads.' The more effective way to reach him is to show him actual figures on the increased efficiency of the carriers and, if possible, that the larger shippers are not doing business through any particular favoritism, but rather through their full cooperation with the carriers and their increased efficiency in car handling."

Acting on a suggestion of the Railroads' War Board, officials of Eastern roads will keep a record of all aid given the roads by shippers. These will be filed as war-time data of specific acts of shippers, or passengers, employees and public officials, and others contributing definitely to greater service. The suggestion came from President Loree, of the Delaware & Hudson, who is chairman of the Eastern division of the Railroads' War Board.

Freight Warehouses to Close Early

Economy and service were reasons assigned for the decision of the freight depot officials of Lexington to close warehouses thirty minutes earlier than heretofore. The decision was made public following a conference of officials with representatives of the Lexington Board of Commerce.

In a statement issued jointly by the railroad people and the Board of Commerce, it was made plain that freight received in Lexington to be delivered locally will not be affected by the new schedule, nor is freight shipped to merchants here in carload lots affected.

According to the new schedule the depots will continue to open at 7 o'clock in the morning, but their closing hour will be 4 instead of 4:30 o'clock. The Louisville depots have adopted similar schedules, while those in Cincinnati will close for the day at 3:30 o'clock. The Lexington freight stations will close at 1:30 o'clock Saturday afternoons.

PITTSBURGH, PA. AND VICINITY



Shipments consigned in our care are insured careful handling and personal attention.



Our experience of 28 years and constant growth coming with such a long period of activity, enables us to safeguard the joint interests of our correspondents and their customers.



We have trackage on Penn'a. Railroad (East Liberty Station) direct to warehouse; padded vans, both motor and horse drawn, thoroughly skilled workmen, 2,000,000 cubic feet of storage space.

ESTABLISHED 1889

INCORPORATED 1898

CABLE ADDRESS: DON'TFORGETTOGETTHEMONEY

HAUGH & KEENAN Storage and Transfer Company

Centre and Euclid Avenues - Pittsburgh, Pa.

ROCHESTER, N. Y.



JOSEPH A. SCHANTZ COMPANY

173-219 Central Avenue

We have every facility for handling your Rochester shipments.

**Two Fireproof Warehouses
Two Non-fireproof Warehouses
Large Fleet of Modern Motor Vans**

By mailing your Rochester bills of lading to us you are guaranteeing the most prompt and courteous service to your patrons. You are also protecting your own interests, because we will return all collections promptly and watch the details carefully.

Member of New York Furniture Warehousemen's Association

Springfield, Mo.**SPRINGFIELD WAREHOUSE
& TRANSFER CO.****425-439 East Phelps Avenue**

"Fireproof, reinforced concrete warehouse equipped with all modern appliances. Transfer equipment for handling merchandise of every description. Special attention given to carload and local freight consignments."

Fireproof**PRIVATE SWITCH—ALL RAILROADS****Low Insurance Rates****"WE WANT YOUR SPRINGFIELD
SHIPMENTS"****SPOKANE, WASH.****Pacific
Transfer Co.****Main Office and Warehouse****South 152 Jefferson St.****Established 1890**

**Moving Vans & General Storage;
Storage of Merchandise and New
Autos; Factory Distributors**

**Siding on Northern Pacific R. R.
Warehouse, 64,800 Sq. Ft.**

Members:

American Warehousemen's Association
New York Furniture Warehousemen's Association
The Illinois Furniture Warehousemen's Association
American Transfermen's Association

British War Horse Losses Small*(Continued from page 9)*

'salted' or clear of infection, that we have attained the remarkably small figure of 1 per cent. loss on board ship, which is one-quarter of the voyage loss during the South African campaign.

"These figures are believed to compare more than favourably with the losses that have occurred both on land and sea among animals bought by our Allies in the same market. No animals bought in America or elsewhere have been found to be over 30 years of age, nor have died of exhaustion on the gangway at the port of shipment. Such could only have been the case were our representatives in America incompetent or negligent, and they are neither. The average monthly percentage of wastage in France during the six months October, 1916, to March last inclusive, was:—0.92, 1.67, 1.25, 1.55, 2.23, and 2.91 respectively."

**STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION,
ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,**

Of TRANSFER AND STORAGE, published Monthly at New York, N. Y., for October 1, 1917.

State of New York, } ss.
County of New York, }

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared F. V. Clark, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the TRANSFER AND STORAGE, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of—	Post-office address—
Publisher Transfer and Storage Publishing Corporation,	110 W. 40th St., New York City.
Editor, F. C. Hahnel,	110 W. 40th St., New York City.
Managing Editor, F. C. Hahnel,	110 W. 40th St., New York City.
Business Manager, F. V. Clark,	110 W. 40th St., New York City.

2. That the owners are (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent. or more of the total amount of stock).

Owner: Transfer and Storage Pub. Corp., whose stockholders are:

Willis D. Leet, 110 West 40th St., New York City.
United Publishers' Corporation, 243 West 39th St., New York City.

Stockholders—

H. M. Swetland,	Montclair, N. J.
C. T. Root,	231 West 39th St., New York City.
C. G. Phillips,	171 Cooper Ave., Upper Montclair, N. J.
W. H. Taylor,	Park Ave., Montclair, N. J.
A. C. Pearson,	231 West 39th St., New York City.
J. M. Phillips,	171 Cooper Ave., Upper Montclair, N. J.
W. H. Lindsay,	231 West 39th St., New York City.
Elizabeth S. Mekeel,	80 Upper Mountain Ave., Montclair, N. J.
Fritz J. Frank,	231 West 39th St., New York City.
M. C. Robbins,	231 West 39th St., New York City.
W. I. Ralph,	231 West 39th St., New York City.
Geo. H. Griffiths,	231 West 39th St., New York City.
F. T. Root,	231 West 39th St., New York City.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent. or more of total amount of bonds, mortgages, or other securities are (If there are none, so state):

None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

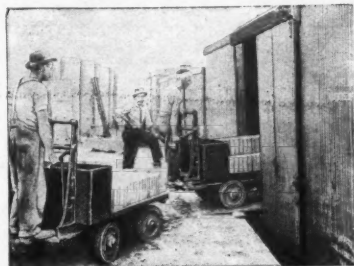
5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is:..... (This information is required from daily publications only.)

F. V. CLARK,
Business Manager.

Sworn to and subscribed before me this 29th day of September, 1917.

(Seal.) Notary Public, Queens Co. Clerk's No. 1804,
Certificate filed in New York Co. No. 266,
New York Register No. 8205,
My Term expires March 30, 1918.

Now it is the Storage Battery Vehicle



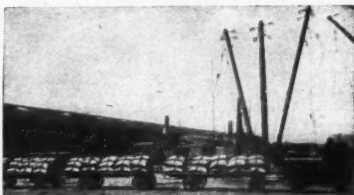
Right into the car to unload with the storage battery truck.



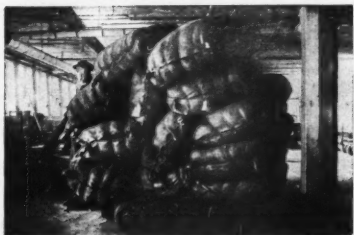
Doing 6 men's work and in less time.



Up a 2 1/2% incline with load of cocoa beans.



Hauling big loads at docks and terminals.



Bulky goods are easily and quickly handled.

Two important conditions have brought about a tremendous increase in the use of storage battery vehicles.

Shortage of common labor, such as hand truckers, etc., has brought about the use of the storage battery industrial truck or tractor. One of these and one man does the work of as many as ten or fifteen hand truckers. The illustrations at the left show some of these at work.

Increased cost of gasoline and uncertainty as to the future has resulted in widespread use of the storage battery road truck. And to their great satisfaction, users find that electrics operate cheaper than "gas" cars, even at pre-war gasoline prices.

The storage battery vehicle is coming into its own.

The storage battery is the most important part of the storage battery vehicle. On it depends reliable and economical operation.

No small part of the success of these vehicles is due to the use of Edison Storage Batteries.

The Edison Storage Battery is different from all others. It is the only battery that has *any iron or steel* in its construction or elements, or that uses a *non-acid* solution.

These features give the Edison Battery great strength, durability and reliability. It stands up in the hardest service, day in and day out, year after year.

Let us tell you how you can apply electrics to your transportation problems. Ask for Bulletins 500B and 600B, and details.

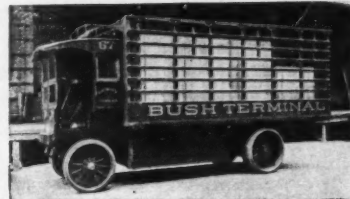
EDISON STORAGE BATTERY CO.

FACTORY AND MAIN OFFICE, ORANGE, N. J.

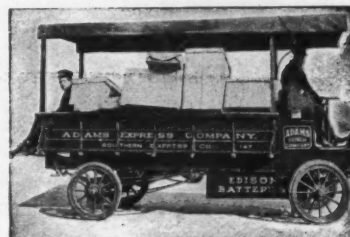


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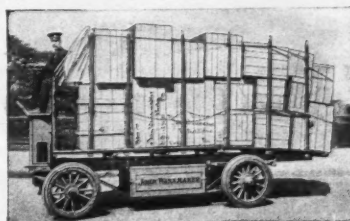
One of a fleet of 42 5-ton trucks in regular use at a large marine terminal.



Electrics have proven very economical for express and transfer companies. The upkeep and repair costs of electrics are remarkably low. Simplicity of its power plant, and reliability of Edison Batteries ensure this.



Over 145 Edison Vehicle Batteries are being used by company operating above trucks.



Know your transportation costs and you will use electrics. Leading merchants have proved the economy of equipping large fleets with Edison Batteries.

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Warehouse on St. L. & S. F. tracks
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Unsurpassed Facilities for Handling Pool Cars

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Reduced Freight Rates on House-
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Offices:

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BOSTON, 640 Old South Building
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LOS ANGELES, 518 Central Bldg.

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STORAGE, HAULING,
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Fireproof and Non-Fireproof
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Service Guaranteed
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PROOF STORAGE CO.**

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5 MODERN WAREHOUSES
15 AUTOMOBILE MOVING VANS
Service and Satisfaction Guaranteed
Cleveland, Ohio

"The NEAL"

7208-16 Euclid Avenue, Cleveland, O.

Modern Fireproof Buildings
Service Complete

Carload Consignments Solicited

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Fireproof Storage Warehouses on Track

Storage, Distributing, Hauling
Pool Cars, Auto Storage

Handle Merchandise & Household Goods

Best Service, Correspondence Solicited

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ONLY FIREPROOF STORAGE IN EL PASO

ERIE, PA.**The Erie Storage & Carting
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Packers of Pianos and Household Goods, Storage,
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Warehouse Siding, switching to all lines

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MOVING, CARTING, STORAGE
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HARTFORD, CONN.**The Bill Brothers Company
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Special Facilities for Moving Machinery, Safes,
Furniture, Pianos, etc. STORAGE WARE-
HOUSES with separate apartments for House-
hold Goods and Railroad Siding for Carload
Shipments

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RECEIVERS & FORWARDERS
 Freight Transfer and Storage Warehouse
 HANDLING "POOL" CARS A SPECIALTY
 Trackage Facilities

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STORAGE & DISTRIBUTING
 Fireproof Warehouses. Separate Locked Rooms

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W. K. MORSE
LIGHT AND HEAVY TRUCKING
OF ALL KINDS
 Office and Stables, rear 83 Mechanic Street
 Residence, 147 Whitney Street

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TRANSFER & STORAGE
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GENERAL HAULING & STORAGE

MINNEAPOLIS, MINN.

Cameron
Transfer & Storage Company
 420 Second Ave. So.
 Unsurpassed facilities for Storing, Handling,
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Meldrum Brothers, Limited
 Cartage Contractors
 Established 1857
 Office, 32 Wellington Street
 Unexcelled facilities for the teaming of car-
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 Storage for Household Effects,
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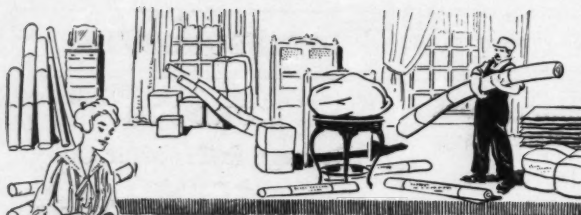
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 Special attention given to the
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WHITE TAR PAPER

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CLIFF & JOHN STREETS, NEW YORK, N. Y.



This truck will enable you to

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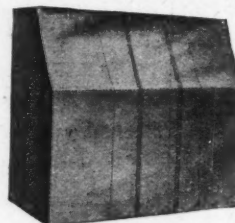
It is endorsed by the piano houses because there is nothing to mar any part of the piano, and recommended by transfer men because it keeps down the labor cost and pleases the men. Send for blue print specifications, with cash and payment prices.

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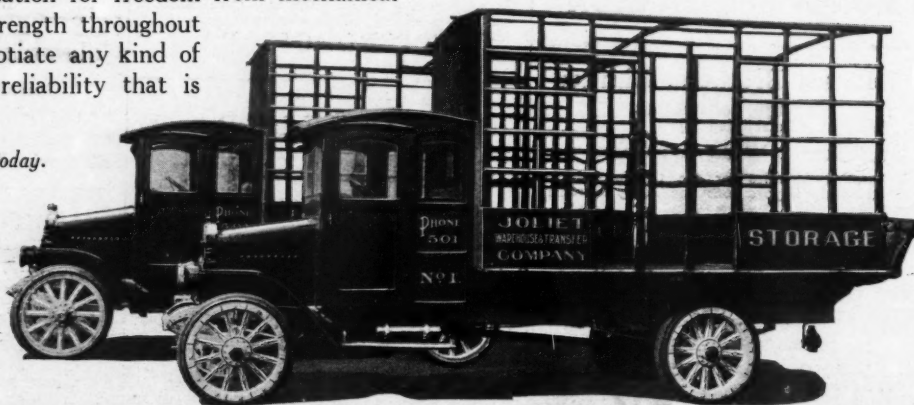
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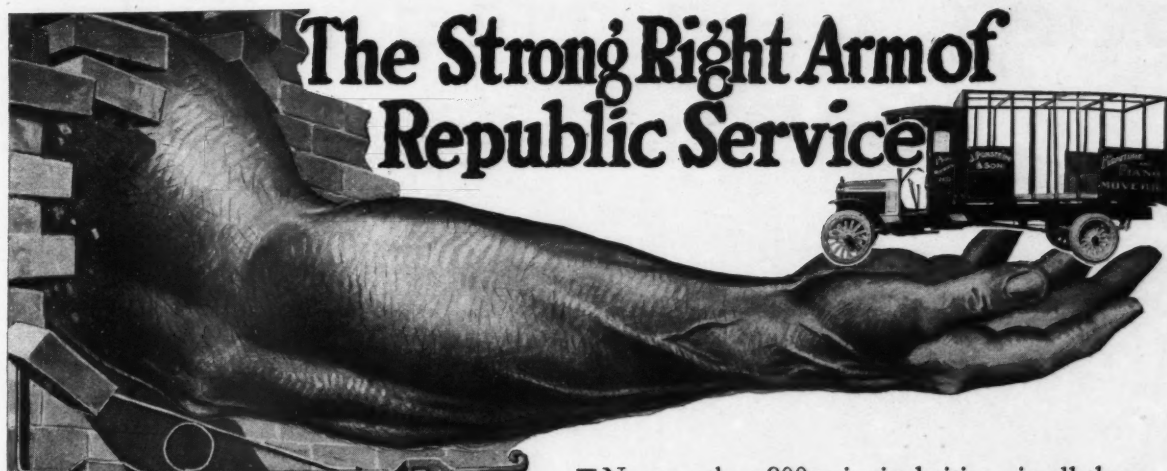
Denby Motor Truck Co.

Dept. O

Detroit, Michigan

Capacities:
1 Ton to 5 Tons





IN more than 900 principal cities—in all the 48 states, this sign is displayed by America's representative motor truck dealers. Republic Service blankets the country with these stations, completely equipped and expertly manned. When you think of trucks

Look for this Sign

It is your sure guide to truck service as far ahead of the ordinary as Republic Trucks. Investigate and you will learn why over 25,000 Republic Trucks are cutting hauling costs in every line of business. You will learn why an output of 100 trucks a day and the largest exclusive truck factory are required to meet the demand.

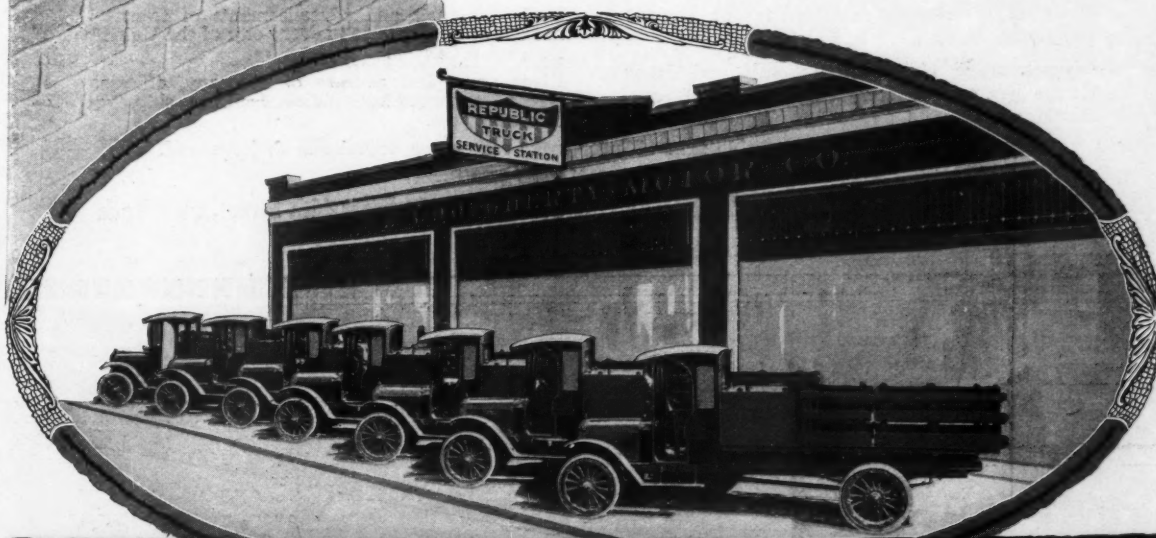
Seven Models, ¾-ton to 5-ton, at Low Prices

Republic Special, ¾-ton, 128-inch wheelbase, with the usual Republic excess capacity, chassis with seat, **\$895**. Republic Dispatch with express body, windshield, canopy top, side curtains, **\$895**; with solid panel body, **\$920**. 1-ton, with bow top and stake or express body, **\$1195**. 1½-ton chassis, **\$1450**. 2-ton chassis, **\$1885**. 3½-ton chassis, **\$2750**. 5-ton Thoroughbred chassis, **\$4250**. All prices f. o. b. factory.

Write for catalog of model you are interested in. Address Dept. AN

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SECOND EDITION

CONTAINS

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Revised reports and advertisements of transfer and storage companies in every city of the United States and Canada.

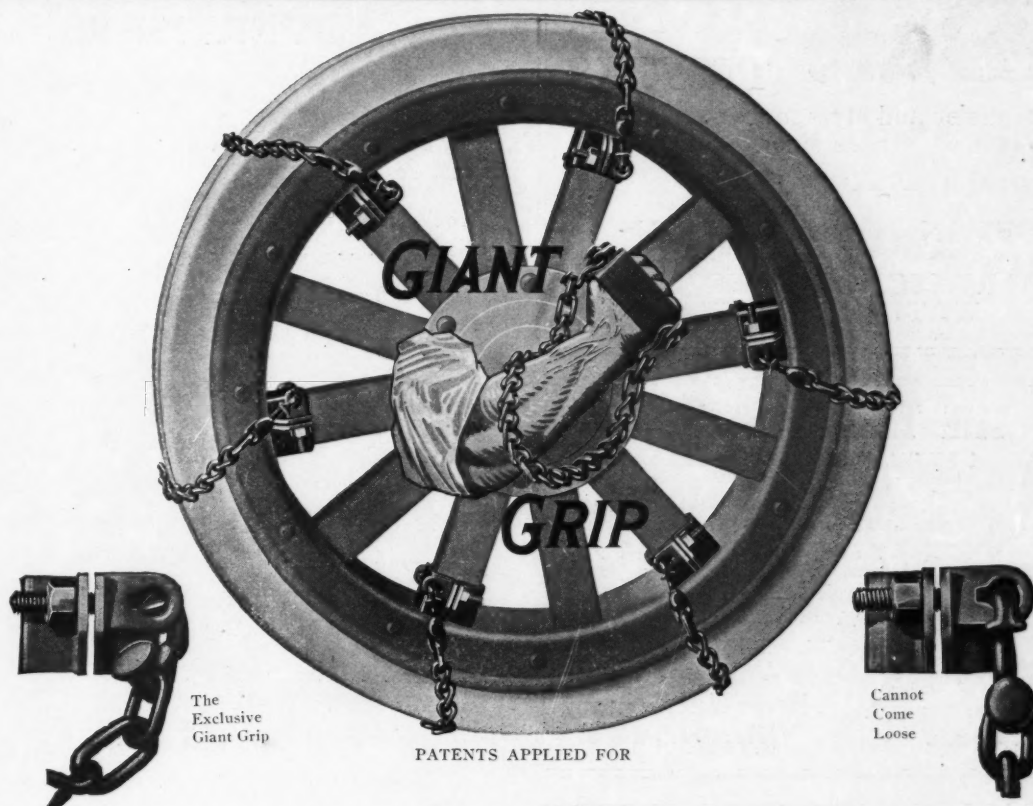
Gives name and address of company, officers, kind of commodities handled, facilities, shipping directions, etc.

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**Actual Size
of Book ..**

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Giant Grip Non-Skid Chains

Are Now Ready for All Motor Trucks

The slippery, snowy season is almost here—the season when motor trucks slide away their efficiency, unless owners provide them with a non-skid set of chains, at once, *easy to carry, quick to attach, simple to remove, and effective in action.*

GIANT GRIP Non-Skid Chains for motor

trucks are quickly and easily attached *with all 4 wheels on the ground.* No preliminary jacking up. No long chains to unravel. GIANT GRIP Non-Skid Chains go on when you need them, do their work with thorough precision, and come off when you are through with them, without the slightest inconvenience or unnecessary waste of time.

GIANT GRIP Non-Skid Chains establish a new standard, in material, construction and service. *Heat treated drop forgings* are used throughout. The clamps are lined with "Gripoid"—our special creosote prepared lining which *lasts as long as the steel itself.* Substantial hexagon nuts are used in fastening the clamps together, insuring absolute reliability. All hooks are attached to the *outside* of the clamps, for *convenience and speed.*

GIANT GRIP Cross Chains are attached to the clamps *without the use of any tools.* This is an exclusive GIANT GRIP feature. And on account of their construction *they cannot work loose.* Write for free illustrated literature with complete details, showing method of attachment, and prices.

DEALERS ask for liberal discounts on the kind of winter necessity that sells.

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Established 1863

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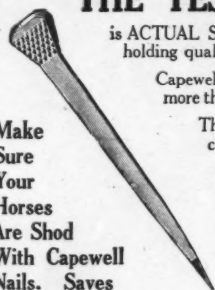
For transfer and storage men. Made in three sizes

1—2—3½ Tons

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WATERLOO, IOWA

THE TEST THAT TESTS—



Make
Sure
Your
Horses
Are Shod
With Capewell
Nails. Saves
Needless Expense.

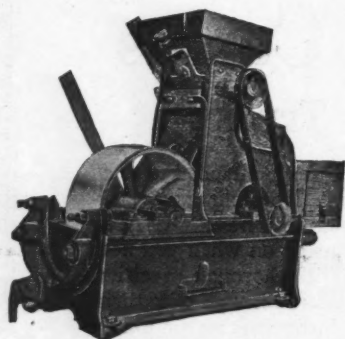
is ACTUAL SERVICE. Nothing like it to prove the holding qualities of a horse nail.

Capewell nails have been tested in this way for more than 35 years. They lead all other brands.

The best nail at a fair price—not the cheapest regardless of quality.

Ask your shoer to use "Capewell" nails. You will find them most economical.

**The Capewell
Horse Nail Company**
Hartford, Conn.



"Digestion First"

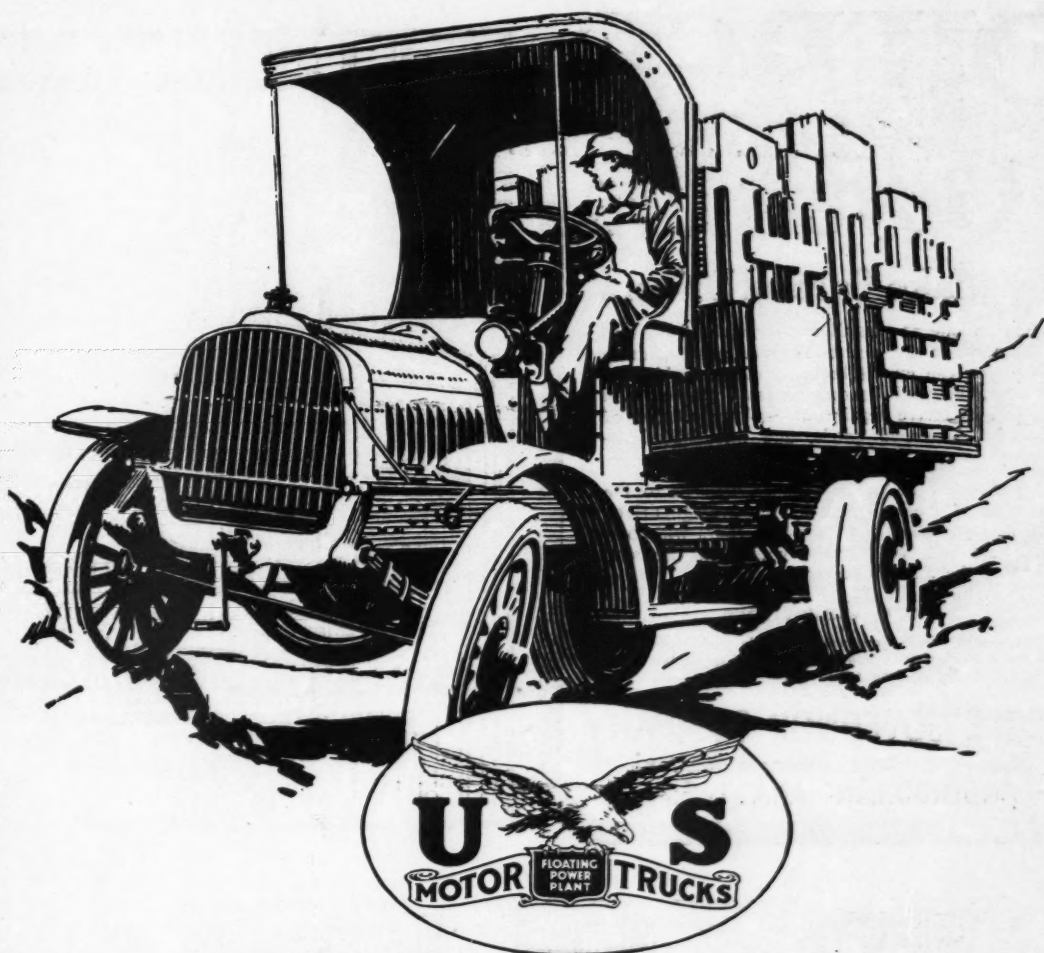
Send for "Digestion First" booklet. A work of art pointing out the road to wealth. Presenting complete records of savings by others and a list of users you know.

EXCEL MANUFACTURING CO.
POTTERSVILLE, NEW JERSEY

Makers of the National Oat Crusher

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Your Truck should have the FLOATING POWER PLANT

The Floating Power Plant is the vital exclusive feature of design in U. S. trucks.

It has the unqualified approval of U. S. truck owners—they recommend it enthusiastically.

The Floating Power Plant is the most flexible of all power plant mountings. It prevents the twisting of the truck—such as occurs on rough roads—from putting pressure and strain upon the motor.

Though the truck stands so unevenly—one wheel is six inches off the ground—the motor will still run smoothly and sweetly.

The U. S. can get itself out of difficulties where it would stick but for the Floating Power Plant.

It is as powerful on rough roads as on smooth.

Less fuel is required, less lubricating oil, and it is not so often necessary to replace the wearing parts.

That is why the Floating Power Plant is valued so highly by owners and dealers alike.

Worm-Drive—2½, 3½ and 5 ton. Chain-Drive—2½ and 3½ ton.

THE UNITED STATES MOTOR TRUCK CO.

CINCINNATI, O.

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Dealers in All Commercial Centers



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Make Careful Drivers

Just so long as you allow your truck drivers to speed through the streets or race along country roads, you can expect broken springs, rapid wear on tires, damaged bearings, wasted gasoline and oil, and excessive repair bills—to say nothing of accidents, damaged goods, and dissatisfied customers.

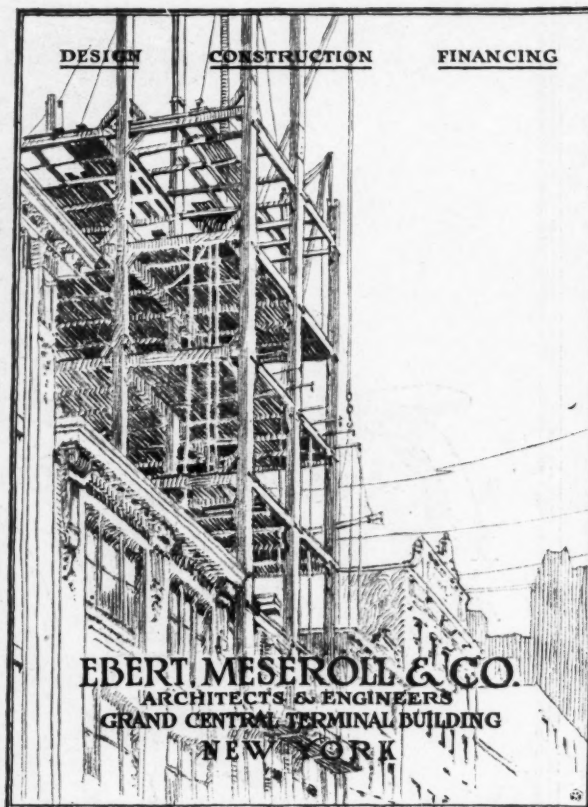
Speeding is the greatest abuse incident to the handling of motor trucks by the average driver, but the installation of Pierce Governors will absolutely stop all fast driving, without in the least affecting the motor's power.

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FOR SALE—Forty vehicles, omnibuses, carriages, coupes, cabriolets and park traps, job lot for which we have no further use. Address Excelsior Express & S. C. Co., 1131 Liberty Ave., Pittsburgh, Pa. Oct. 3t

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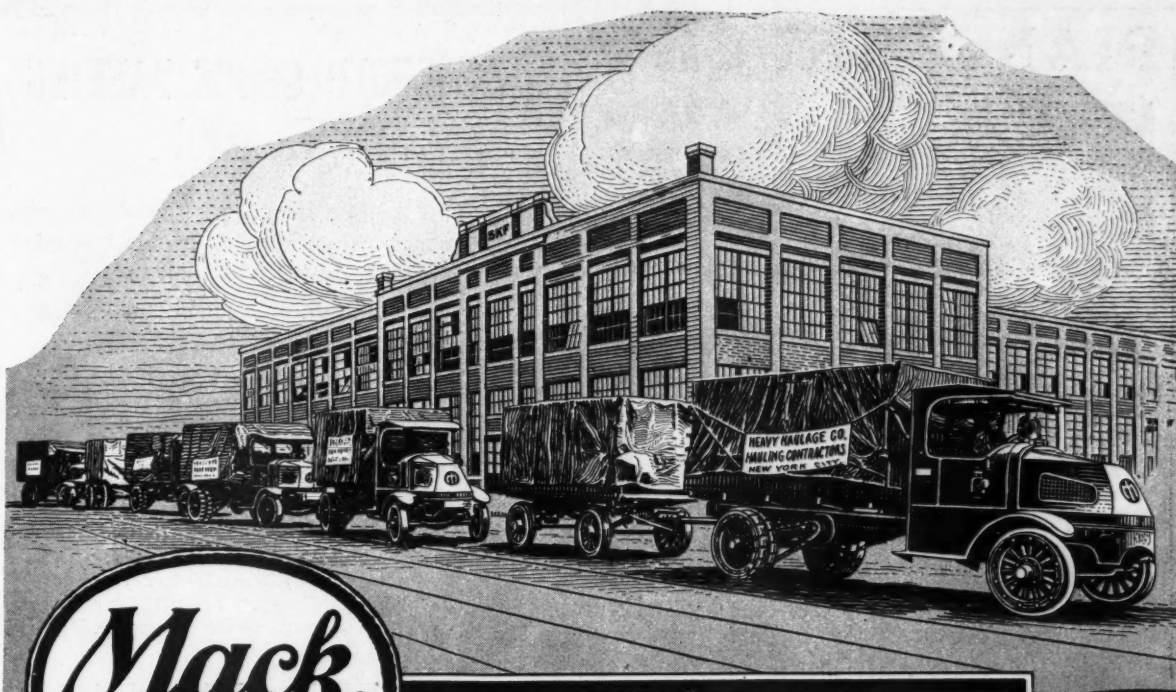
WANTED—General Manager by a large modern household goods warehouse. Must have held similar position before and able to furnish credentials. Knowledge of financial end required. Address Box 142, care of TRANSFER AND STORAGE, 110 West 40th St., New York City. Sept. 3t

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WANTED—Experienced warehouseman, capable of taking entire charge of operating end, quoting prices, handling help, etc. Thoroughly acquainted with the latest methods. Preference given to party living in Detroit. State age, experience, reference, salary expected. All confidences respected. Turner Cartage Company, Detroit, Michigan. Nov. 3t

WANTED—Bookkeeper for large, up-to-date warehouse storing household goods. Must be experienced in this department, as only the best will be considered. Should understand plotting of financial charts. Address Box 143, care of TRANSFER AND STORAGE, 110 West 40th St., New York City. Sept. 3t

WANTED—Wagon for moving heavy machinery, capable of carrying 25 tons. Forward photograph and full particulars. P. O'Malley & Son, care City Truck Line, Geneva, N. Y. Nov. 3t



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The Haulage Company responded by putting five 5½ ton MACK trucks with trailers on the job. When the next day broke the forty-four tons were at the S-K-F plant. The MACK trucks had made the 140 mile haul overnight.

MACK trucks have performed many unusual feats like this. They are ready for any task any time of day or night. They are doing the hardest kind of hauling every day, and are doing it at minimum cost for fuel and upkeep.

MACK trucks have speed, strength, power. Many transfer and storage companies will use no other make.

Write for facts and figures.

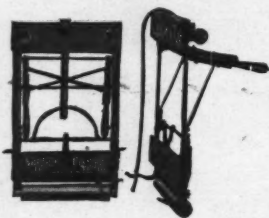
MACK truck capacities: 1, 1½, 2, 3½, 5½, and 7½ tons; with trailers, to 15 tons.

INTERNATIONAL MOTOR COMPANY
NEW YORK

Performance Counts

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7 Styles End Trucks
2 Styles Sill Trucks
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UNCLE SAM NEEDS YOU

Men experienced in the supervision of delivery services or express and drayage companies, or who have had service in the wagon transportation service of the army, capable of handling men.

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have been used for years by the largest Storage Warehouses, Fur Manufacturers and Woolen Mills to protect goods from moths when packing for storage or shipping.

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Because, tests under driving and load carrying conditions have proved the supremacy of Service Trucks. 20% super-strength in every detail without excess weight means long life and durable service.

Only five of the Dominant Ten Motor Trucks use engines with the wonderful power of Service. The Service Motor shows 11% greater power than the other four. None of the Big Ten equals the Service in strength. Absence of vibration in Service Motors minimizes wear and tear—increases power and efficiency.

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You need them all. Whatever your requirements are there is a Service Truck built to satisfy you. Let us solve your truck problem.

Prices — All Models

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1½ ton truck... 2200	3½ ton truck... 3600
	(Special Contractors)
2 ton truck... 2500	5 ton truck... 4300

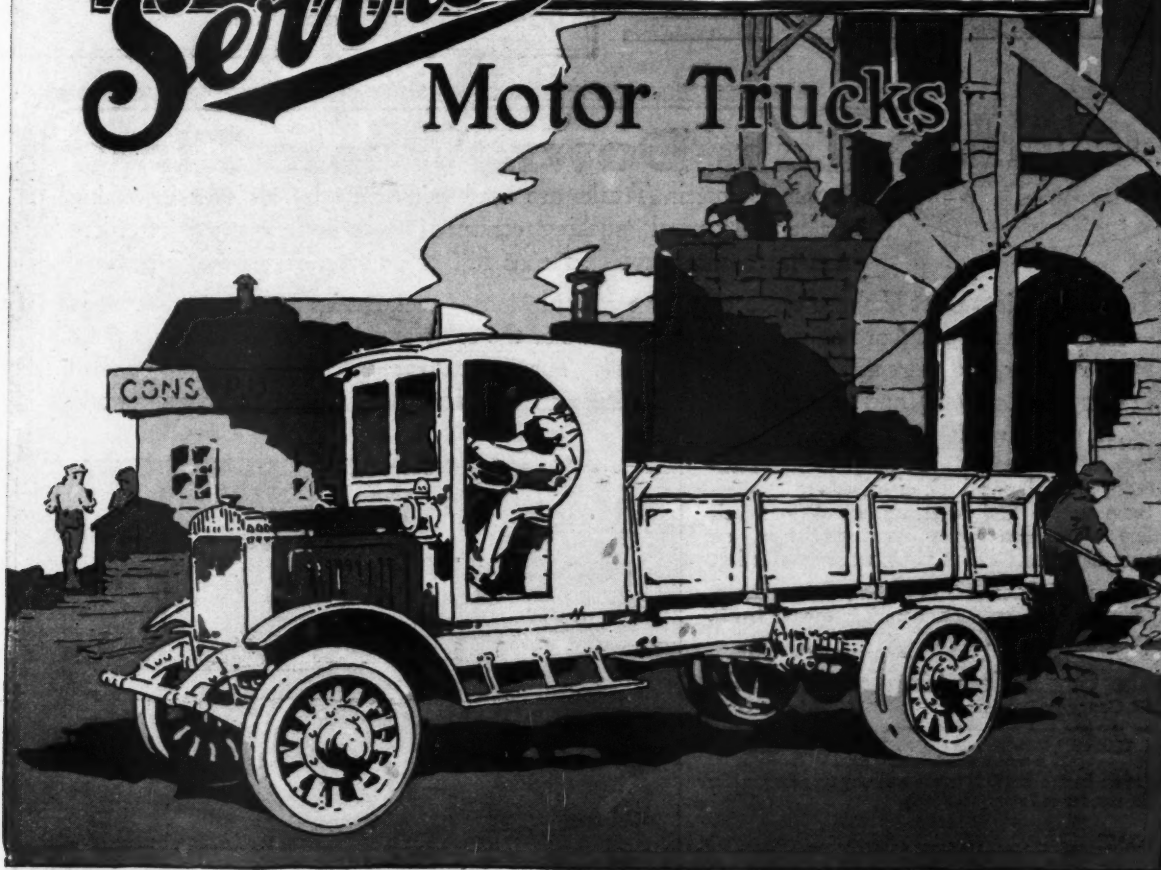
(Prices subject to change without notice)

Service Motor Truck Company, Dept. P-11 Main Office and Factory **Wabash, Indiana**

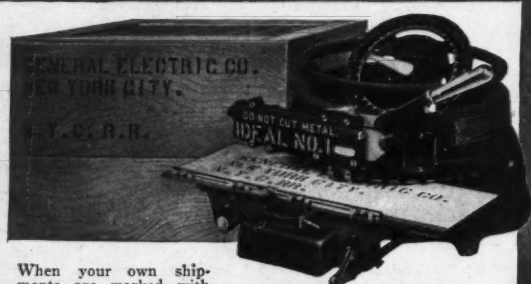
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IDEAL STENCIL MACHINE COMPANY
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31 Ideal Block Belleville, Ill., U. S. A.

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If you are interested in getting the maximum uninterrupted, productive work from your truck, send the coupon TODAY.

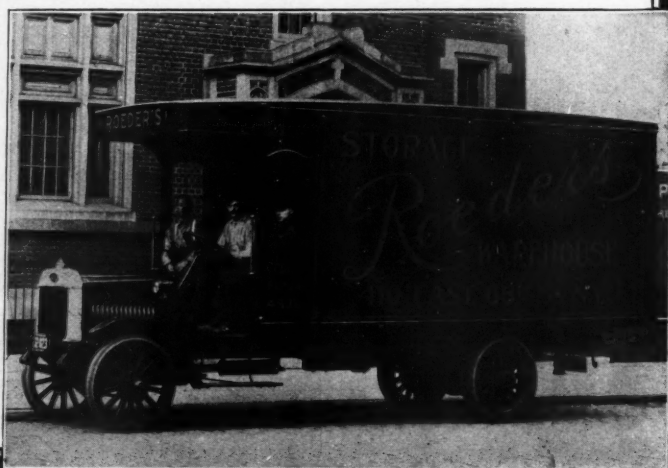
The Gramm-Bernstein Motor Truck Co.
27 Gramm Boulevard Lima, Ohio

THE GRAMM-BERNSTEIN MOTOR TRUCK CO.
27 Gramm Boulevard, Lima, Ohio

Let me know about G-B trucks and why they are good for the transfer and storage business.

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ADDRESS.....





(A handsome G.V. van recently placed in service by the "Security" in Washington)

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Do you know that these horses would consume 2,775,600 bushels of oats and 84,810 tons of hay each year, worth \$3,808,740?

Do you know that the "juice" for the Electrics displacing those horses costs about \$1,233,600? A "fuel" saving of \$2,575,140 right there!

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Get acquainted with *the peculiar war time advantages of the Electric.*

Catalogue 127 on request

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General Office and Factory, Long Island City, New York

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CHICAGO

BOSTON

PHILADELPHIA



Six Models: 1000 to 10,000 Pounds Capacity. Dealers in Open Territory Are Invited to Correspond

PLEASE MENTION TRANSFER & STORAGE WHEN WRITING TO ADVERTISERS

Shock Absorbers on Every Wheel

Steel rails smooth the way for locomotives.

Steel springs on motor trucks ward off many of the jolts and jars from rough roads.

But GOODRICH DE LUXE Truck Tires, with their extra deep tread of tough, resilient rubber, provide effective *shock absorbers on every wheel.*

If you want this added protection from destructive vibration, equip your trucks with GOODRICH DE LUXE Truck Tires. More mileage—longer service.

THE B.F. GOODRICH RUBBER COMPANY

Makers of the Celebrated Goodrich Automobile Tires—
"Best in the Long Run" AKRON, OHIO

GOODRICH TRUCK TIRES

GOODRICH
TRUCK TIRE
SERVICE
STATION

Trucks That Follow
The Sign of
Good Service
Take Less Time Out



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The Lane
That Leads
To Wealth

LANE

The Lane
That Leads
To Wealth

MOTOR TRUCKS

Give the Army Test to the Lane

In the army a man must pass a stiff and careful inspection of every "part" of his human machine before he is accepted for service. No favoritism goes—no prejudices count.

It's a pretty good way to decide on a motor truck: especially for the transfer and storage man whose trucks must stand up under gruelling conditions.

Give the Army Test to the Lane. Go over it point by point

That request can in no way be considered from the standpoint of self-interest, except as we know the Lane will measure up. It is made from your side of the fence.

The Lane is made in 1 to 1¼, 2 to 2½, 3½ and 5 ton capacity.

Send for literature today.

Brief Specifications of Model B, LANE MOTOR TRUCK

FRAME—Unusually heavy, 6 in. channel section.
MOTOR—Continental Six-Cylinder, 3½-in. bore by 5¼-in. stroke.

STARTING, LIGHTING AND IGNITION—Two unit system with Willard Battery.

CARBURETOR—Stromberg, equipped with governor.

COOLING—Water circulation by centrifugal pump with built-up cast frame radiator.

TRANSMISSION—Three speed and reverse, sliding gears, located amidships.

CLUTCH—Three plate disk with Raybestos linings.

FRONT AXLES—I beam, 2 in. by 2¼ in. section, with roller bearings in wheels and steering knuckles.

REAR AXLE—Worm drive, full floating.

STEERING GEAR—Split and gear, Semi-Reversible, 20-in. wheel.

CONTROL—Gear shift and emergency brake levers in center, spark and throttle under wheel, foot accelerator, clutch and brake.

SPRINGS—Semi-elliptic front and rear, 44-in. front, 3 in. by 56 in. rear.

BRAKES—Two sets operating internally on rear wheel drum.

WHEEL BASE—150 inches standard, with option of 180 inches.

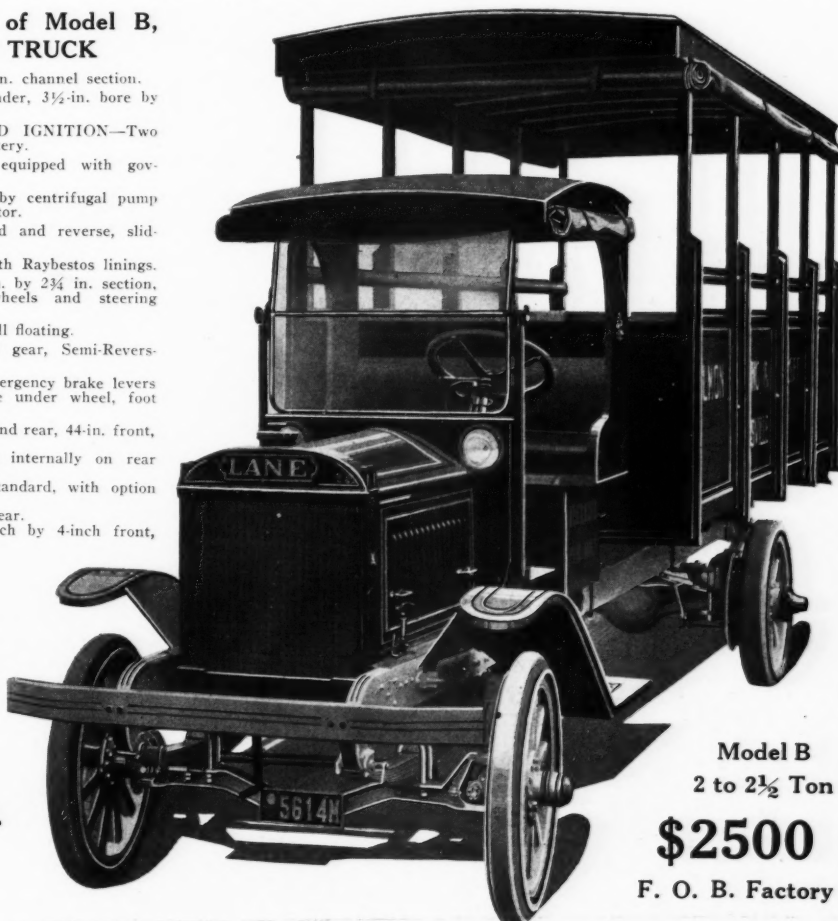
TREAD—58 inches front and rear.

WHEELS AND TIRES—34-inch by 4-inch front, 36-inch by 6-inch rear.

GASOLINE SYSTEM—Stewart-Warner vacuum feed with 20-gallon tank under seat.

CHASSIS EQUIPMENT

—Self starting and lighting system with electric head and tail lights, electric horn, governor, tool kit, locomotive screw jack and oil can.



The
Lane Motor Truck Co.

Kalamazoo
Michigan

Model B
2 to 2½ Ton

\$2500

F. O. B. Factory



MARTIN

Rocking Fifth Wheel



The light truck with the semi-trailer attachment has come to stay

A one ton truck or a converted pleasure car will furnish the motive power to haul a two or three ton load.

Your old horse van or wagon connected to such a truck with a Martin Rocking Fifth Wheel, will give you motor equipment that will do the work of four horses, at least.

The total cost of this equipment will be less than the price which you will receive from the sale of the horses that will be displaced.

Maintenance cost on an outfit of this sort is considerably less than the upkeep of a

heavy truck. Tire expense is exceptionally low; a gallon of gas will yield from eight to twelve miles.



Rear Construction Ready to Attach to Body

Don't throw away your old horse equipment. Use the wagons and vans until the steel tired rear wheels are worn out and then put in place of the steel tired wheels, plain bearing axles and wagon springs, our complete rear construction ready to attach to the body. This rear construction consists of Automobile Springs, Floating Bearing Anti-friction Axle, Artillery Wheels, Rubber Tires, and complete fittings.

Write us about your cartage problems. We shall be glad to suggest to you how you can save money

MARTIN ROCKING FIFTH WHEEL CO.

SPRINGFIELD

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